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# GLEANINGS IN BEE CULTURE

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By A. I. Root

THE A. I.  
MEDINA



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OHIO

Western Edition

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Northern-grown Seeds, Trees and Plants,  
Poultry and Bee Supplies, Spray Pumps,  
Fertilizers and Garden-tools.

## Honey Column.

### GRADING-RULES.

**FANCY.**—All sections to be well filled, combs straight, firm ly attached to all four sides, the combs unsoiled by travel stain, or otherwise; all the cells sealed except an occasional cell, the outside surface of the wood well scraped of propolis.

A No. 1.—All sections well filled except the row of cells next to the wood; combs straight; outside part of comb surface soiled, or the entire surface slightly soiled; the outside surface of the wood well scraped of propolis.

No. 1.—All sections well filled except the row of cells next to the wood; combs comparatively even; one-eighth part of comb surface soiled, or the entire surface slightly soiled.

No. 2.—Three-fourths of the total surface must be filled and sealed.

No. 3.—Must weigh at least half as much as a full-weight section.

In addition to this the honey is to be classified according to color, using the terms white, amber, and dark; that is, there will be "Fancy White," "No. 1 Dark," etc.

### CITY MARKETS.

**MILWAUKEE.**—There is a very quiet condition of matters relating to our market for honey of all kinds. Receipts are not very large, and fancy comb not very plentiful and would sell, but common grades neglected. Stocks of all descriptions are not large. We continue to quote for fancy comb in one-pound sections, 16@17; A1 sections, 14@15; old or common quality, nominal, 10@13. Extracted in barrels, cans, or pails, white, 9@9½; amber, 6½@8. Beeswax, 28@30.

A. V. BISHOP & Co.,

Jan. 10. 119 Buffalo St., Milwaukee, Wis.

**PHILADELPHIA.**—The demand for comb honey has fallen off some since our last quotation, with a good supply on hand and prices a little easier. This is always the case after Christmas for a few weeks, on account of the people eating so much sweet at Christmas time. We quote fancy white comb honey, 15@16c; No. 1 at 14c; No. 2 at 12c. Fancy extracted honey, white, 8c; amber, 7c. Beeswax 29c, and in good demand. We are producers of honey and do not handle on commission.

W.M. A. SELSER,

Jan. 10. 10 Vine St., Philadelphia, Pa.

**ALBANY.**—Honey market quiet with light stock and moderate demand for comb at 15@16 for white; clover mixed, 14@15; buckwheat, 13@14. Sharp demand for buckwheat and dark extracted, 7@7½; and selling equal to the light color, at the same price. Beeswax, 28@30.

MACDOUGAL & Co.,

Jan. 7. Albany, N. Y.

**CINCINNATI.**—The comb honey market is a little quiet, almost everybody is filled up. As there is hardly any new supply coming in there is no change in price. Fancy water-white, 16 cts., off grades less. Extracted fancy white clover, 8½@9; alfalfa water white, 6½@7½; amber, in barrels, 5½@5½. Beeswax, 27@28.

C. H. W. WEBER,

Jan. 9. 2146 Central Ave., Cincinnati, O.

**BUFFALO.**—The price of honey is firm in this market. Demand a little slow, but holders not inclined to shade prices to sell. Fancy white comb, 15@16; A No. 1, 14@15; No. 1, 13½@14; No. 2, 12½@13; No. 3, 12@12½; No. 1 dark, 11@12; No. 2, 10@11. White extracted, 7@7½; amber, 6½@7; dark 5½@6. Beeswax, 28@30.

W. C. TOWNSEND,

Jan. 10. Buffalo, N. Y.

**SAN FRANCISCO.**—Honey market as follows: Comb, per lb., 10@13. Extracted, water white, 6½@7; light amber, 6@6½; dark amber, 4@5. Beeswax, per lb., 28 cts.

E. H. SCHAEFFLE,

Jan. 3. San Francisco, Cal.

**NEW YORK.**—Demand for comb honey is only fair, but buckwheat extracted is wanted. Fancy comb, 15c; buckwheat, 12@13. Beeswax scarce and a good demand, 29@30. FRANCIS H. LEGGETT & Co.,

Jan. 10. Franklin and Varick Sts., New York.

**CHICAGO.**—The best grades of white comb sell at 15@16 per lb.; travel-stained and light amber, 13@14; darker grades, 10@12. Extracted, 7-8 for white, and 6@7 for amber. Beeswax steady at 30 cents.

R. A. BURNETT & Co.,

Jan. 9. 199 South Water St., Chicago, Ill.

**DENVER.**—Demand for both comb and extracted honey light, and we do not expect any improvement until after the holidays. Fancy white comb brings \$3.50 per cwt case of 24 sections; No. 1 white, \$3.10@\$3.25; No. 2, \$2.75. Extracted, 7½@8½ per lb. Beeswax, wanted at 22@26, according to color.

THE COLORADO HONEY PRODUCERS' ASS'N,  
Dec. 22. 1440 Market St., Denver, Col.

**KANSAS CITY.**—Market steady at quotations. We quote fancy white, per case of 24 sections, \$3.50; No. 1, \$3.40; No. 2 and amber, \$3.25. Extracted white, per lb., 7@7½; amber, 6@6½. Beeswax, 27@30  
C. C. CLEMONS & Co.,  
Dec. 20. 306 Grand Ave., Kansas City, Mo.

**FOR SALE.**—Light and buckwheat extracted honey in cans and kegs; sample, 8c.  
I. J. STRINGHAM, 105 Park Pl., New York City.

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D. S. JENKINS, Las Animas, Col.

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M. P. RHOADS, Box 216, Las Animas, Colo.

**FOR SALE.**—Alfalfa water-white honey, 60-lb. cans, two in a case, at 7½c; fancy basswood in 250-lb. bbls., 8c; same in 60-lb. cans, two to a case, 9c. We buy and sell for cash only.

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R. A. BURNETT & Co.,  
199 South Water St., Chicago, Ill.

**FOR SALE.**—Extracted honey. Finest grades for table use. Prices quoted on application. Sample by mail, 10 cts. to pay for package and postage.

OREL L. HERSHISER,  
301 Huntington Ave., Buffalo, N. Y.

We will be in the market for honey the coming season in carloads and less than carloads and would be glad to hear from producers everywhere what they will have to offer.

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# GLEANINGS IN BEE CULTURE

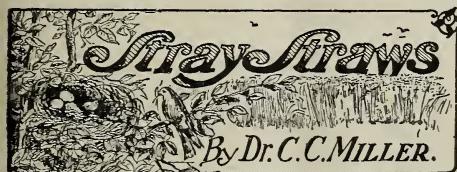
A JOURNAL  
DEVOTED  
TO BEES,  
HONEY,  
AND HOME  
INTERESTS.

ILLUSTRATED  
SEMI-MONTHLY  
Published by THE A. Root Co.  
\$100 PER YEAR MEDINA OHIO

Vol. XXXI.

JAN. 15, 1903.

No. 2.



SEVERE WEATHER will rule the rest of the winter, if it is a winter of average severity, for thus far it has been mild. [This is apt to be the rule. One extreme is liable to be followed by another; so, let us look out.—ED.]

YOU CAN SCALD milk or any thing else in aluminum, and it will never burn on or stick," p. 29. But it will "in this locality," friend A. I., and we got it at Montgomery Ward's too. But it takes a hotter fire to make trouble, and the ware is very nice.

THE MOLE spoken of on p. 9 "has a tail as long as that of a mouse, but the animal is larger." The mole that lives "in this locality" is larger than a mouse, but it has a very short tail. I think it has the most beautiful fur I ever saw. I don't think it ever troubles bees.

DOOLITTLE and Stenog must be both good-natured men or there'd be a row between them when they get mixed up the way they have on p. 9. [Yes, by mistake we got our heads mixed; but there's some satisfaction in having such a head as Doolittle's, even if for but a short time.—STENOG.]

DR. RIEHM-GRIFFE says in *Die Deutsche Bienenzucht* that a queen is killed when balled, neither by stinging nor suffocation, but by lack of food, and rough handling. I suspect that the starving is the usual cause of death, and I have some doubt that a queen is ever stung when balled, unless the bee-keeper meddles. [This would be in harmony with my own observations.—ED.]

THAT FIRST-PAGE COVER of GLEANINGS is good, only you ought to have had a queen's egg instead of a hen's egg to contain the

"Contents." [You mean that we ought to have adopted the shape of the queen's egg instead of that of the hen. Perhaps it would have been more in harmony with the general subject-matter of the journal, but it would not be in harmony with the design from an artistic point of view.—ED.]

"I DO NOT DESPAIR of finding some feasible plan of dealing with a colony that will leave it without the desire to swarm." So I said, p. 7, and then ye editor says, "but the apiarist must somehow have some means of knowing whether a colony will ever think of swarming." Well, when that "feasible plan" is discovered I'll apply it to the colony, and then I'll know that it will never think of swarming. See? [Yep! —ED.]

THE DOUBLE-DRIVE plan will help a whole lot with forced swarms; and now if there's some way to relieve them from any extra comb-building the plan will be getting close to perfection. [It seems to me the scheme of double driving is one of the essentials to the best success in the plan of handling forced swarms. By the way, some one suggested driven swarms to apply to all swarms, shaken, shook, brushed, jounced, or forced.—ED.]

I HAVE some of Luhdorff's phacelia seed planted in a pot standing in the window, and I expect to find out whether it's the same as the ordinary flowering phacelia. My first acquaintance with that was as a window-plant many years ago; and, if I remember rightly, besides having a beautiful flower it was fragrant, although not having the same fragrance when growing in the open air. Later on I may find out whether it's a forage-plant, unless some of those California fellows get thawed out enough to tell us.

YES, MR. EDITOR, give us cuts and illustrations in physical culture that will make us strong and live long. At least put it in the copy of GLEANINGS you send me, so I can live longer than the others. [Just wait till I get a little time for our artist to show the different poses. You may be interested in knowing that three members of the Root Co., including some of the women-folks, are

taking daily physical-culture exercises. It is no fad or hobby, because we have been keeping it up for the last six months, with good results. Persons of sedentary habits can well take them up, and it will, I believe, add years to their lives.—ED.]

GERSTUNG, editor of *Die Deutsche Bienucht*, quotes the Straw about long-tongued bees, p. 545, and adds, "By the side of this possible fact stands the other, that unused muscles relax and even deteriorates. Both facts, however, stand opposed to the view that long-tongued bees owe their origin to particular queens. It is the conditions of life that exercise determining influence." Does Herr Gerstung mean that the queen has no influence whatever upon her posterity? [There is some truth in what Gerstung says; that is, we found that the tongue-reach is greater during the height of the honey-flow than during the rest of the season. The constant strain to get at the coveted sweets has a tendency to draw the organs out, and possibly "relax" them, as the physicists say, to a point where the natural reach is greater. But I think we must look more to blood and selection than to any other source.—ED.]

YOU MAY ARGUE all you please, Mr. Editor, with Doovitte about cellar wintering, but I tell you it makes in me an aching void when I read about his putting bees in a place where they will stay all winter long without care and without change of temperature. Say, Bro. Doolittle, what would it cost me for a hillside of the right kind to dig a bee-cave in? and could you make any reduction by the quantity? [So you envy Doolittle his bee-cellars. I take it that you are not able to secure an even temperature; and I believe that, if the facts were known, there is not one bee-keeper in a thousand who has a cellar or repository where the temperature will remain as uniform throughout the winter, irrespective of outside temperature, as in the Doolittle cellar. For that reason it does not seem advisable for me to counsel giving bees no ventilation, and letting them entirely alone. A plan of procedure that would answer for an ideal cellar like Doolittle's would not answer for the average cellar that is far from being ideal.—ED.]

"INTRODUCING queens from one to three days old," says G. M. Doolittle, p. 9, from an incubator or queen-nursery has proven an unsafe method with me, and one that causes more labor and worry than the time gained would compensate for." I wish he had told us what was the "time gained." When I tried it, it was actually time lost, for I would have a queen laying sooner when I gave a ripe cell than when I gave a young queen. Strange, wasn't it? [Doolittle's experience is about the same as our own. For that reason the lamp-nursery was taken out of the A B C book nearly fifteen year ago. The nursery was used to take care of a surplus of cells when, for example, all nuclei had either virgins or

cells. Sometimes a virgin in a nucleus is lost. In such cases a young virgin from the nursery, one or two hours old, would be run in and accepted. But if there is any doubt we find it better to put in a cell where we are not so sure there is a virgin, but only at such times as we have a surplus of such cells.—ED.]

MAIL PRIVILEGES in this country are of the best in some respects, while in other respects we are behind. In some countries commercial quantities of honey can be sent by mail. There seems something peculiar, not to say wrong, in a condition of affairs that allows me to mail a package of honey from Marengo to any part of Germany for less cost than to the nearest town. [This is one of the strange things; and yet it is not so very strange after all when we remember the powerful lobbies the express companies can put up in Congress to prevent the passage of bills that would obviously cut down their business. When we get nearer the millennium we shall have a United States parcel post, in spite of the express companies; and I hope we shall not have to wait beyond the ken of our lifetime either. The people of this great country are coming to a point where they will not allow aggregations of capital to hold their noses on the grindstone forever. When capital overreaches, and keeps on doing it, as it did during the coal strike, the people are apt to have something to say. There, now, I did not mean to go into the realm of politics, or socialism; but I believe the principle of the golden rule is bound to hold greater sway in the near future than it does now.—ED.]

A CLIPPING was sent me, beginning, "The churches are decaying everywhere, and ending." "The influence of the church is dying," while in between was the statement that statistics showed a falling-off in the attendance at Sunday meetings during the past decade of 25 to 60 per cent. Somewhat strangely, in nearly the same mail I received the account of a careful census of adults attending church in New York city the three first Sundays in November. Of the 366 churches investigated, the average attendance was 65 per cent of the membership, and 31 per cent of the attendants were men. If the falling-off has been 25 to 60 per cent, the attendance ten years ago must have been 86 to 162 per cent. That is, out of every 10 members, 86 to 162 must have attended! The country isn't going to the dogs just yet. [I am not worrying about the future of the church. Perhaps its growth is not so rapid as we would like to see it, and yet its influence is increasing. The standard of morals in the world is getting higher and higher. In the matter of temperance, for instance, public sentiment in and out of the church against the drink-traffic is growing stronger every day. Good people are beginning to find there is a power in the church vote, and are using it, and some politicians are beginning to

discover it also. When, for example, we look back fifty years, and see what was tolerated in and of the church and compare that time with this, we have great cause for rejoicing.—ED.]



His journeys are ended, his rambles now cease,  
He has entered for ever the haven of peace;  
Mid tropical scenes, where nature is best,  
He closes his eyes and lies down to rest.



Not till the Stray Straws and Pickings for last issue were made up was it discovered that Dr. Miller and I had been picking from the same field, hence there were three items in his department substantially like three of mine. After this I will let the doctor have the straw while I will try to get the head of it.



Honey is moving, says a late issue of the Sutter Co. Farmer, of California. In proof of that it gives the following:

J. D. Baker, of West Butte, shipped by steamer on the Sacramento River this week a carload of extracted honey to San Francisco. The honey was of good quality, put up in five-gallon cans, two cans to the case, making twelve tons in all. Mr. Baker has about 500 stands, and the product this year was over fifteen tons besides several hundred dollars' worth of wax.



It will be encouraging to bee-keepers to know that public funds are being appropriated for experimental work in their line. We have just received a statement from the State Entomologist of Texas, showing how much damage insects do to the farmer there. In this document we see that the Entomologist has a salary of \$1500, and \$700 for expenses. As his services are probably worth as much to the bee-keeper as if he were hired for apicultural work exclusively, we may credit this to the side of the bee-man. Then there is a fund of \$250 for the apiary exclusively. The Entomologist, Mr. E. D. Sanderson, says, "The bee-keepers ask that we investigate the remedies for foul brood, which has already destroyed several hundred colonies, and threatens the apiaries of the State. Texas is the leading honey and wax producing State, the product amounting to considerably over half a million dollars." He estimates that the people of Texas lose annually about \$75,000,000 from insect pests; and how to destroy them is the problem now before the people at large.



The following is clipped from the California Fruit Grower; and although the substance of it is contained in a letter written

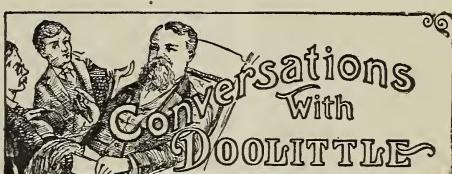
by Mr. F. E. Brown, in this issue, I give it as showing the importance that is attached to this organization, aside from what bee-keepers say of it. It is a step in the right direction, and shows that the bee-keepers of California will no longer allow buyers to take their honey at any price said buyers are willing to offer. It is in no sense a trust, but a businesslike method of putting honey where there is the largest demand for instead of glutting our large cities with it. Here is the extract:

Twenty of the largest bee-men in the State have pledged themselves to further the project of a stock company to do business as a corporation under one management, with a capitalization of \$25,000. These men will also do every thing possible to maintain the price set by the proposed California association.

This association announces that it will fix and maintain a reasonable standard price, and will use a trademark and seal for the prevention of adulteration.

A committee of bee-men composed of G. W. Brodbeck, of this city, G. L. Emerson, of Santa Ana; and L. E. Mercer, M. H. Mendelson and J. F. McIntyre, of Ventura, has been in session perfecting the details of the project, and a preliminary organization has been formed.

It is proposed to have a central warehouse in Los Angeles, and to make that city the principal shipping-point. The final idea of the new corporation is to affiliate with the national association and to perfect a solid, substantial organization.



#### SEPARATING THE WHEAT FROM THE CHAFF.

"Mr. Doolittle, I think I saw something from your pen some years ago about how you arranged in a book the useful articles which appear in our bee literature, so you could turn to them at a moment's notice; and I wish you would tell me something how you did it, for I can not turn to it now."

"Are not all the things which appear in our bee papers useful?"

"They may be to some; but to me much appears like 'chaff'; and what I wish is to have it so I can get the 'wheat' without winnowing over the chaff a second time. In reading the bee papers I find quite a little that appears to me as chaff, while there is some real wheat in every number. Now, how can I separate this wheat from the chaff, and have it so I can at any time turn to and find the wheat without reading the chaff all over?"

"This is a question which once bothered me quite a little, and I studied considerably over the matter, for it was a matter of considerable importance to me. Reading amounts to but very little in and of itself. In order that we may profit by what we read we must remember it, and that at just the time when we wish to put it in practice."

"That is just as I feel in the matter; and

as much which is valuable in our bee papers is published out of season, or not at just the time when it should be put in practice, it is almost impossible for me to remember it till the time of practice. Can you tell me of any way or means which will help me remember these things at the right time?"

"While studying along these lines some years ago I purchased a small leather-bound book containing 72 blank leaves; but if you do not intend to use it for more than one year, 24 leaves will do very well. This book I arranged similar to an assessor's, which has the letters of the alphabet, from A to Z, on the outside margin of the leaves. I now cut the leaves just as I would to letter them; but instead of lettering them I wrote on the little square of the first, Jan. 1, then allowing three leaves for this I wrote on the second, Jan. 15; again, allowing three leaves, on the third, Feb. 1, and so on, giving three leaves or six pages for each half-month; but, as I said, if you wish to use a new book every year, one leaf or two pages will be sufficient."

"I think I understand that part, for I have used lettered books in various ways. Now tell me how to use it after I have it all arranged for the 24 half-months of the year."

"When GLEANINGS first comes it is carefully read and laid away in a place set apart for it; and the other bee papers which I take are treated in the same way, so that, at the end of the year, they are in perfect order to be bound. Unless you do this some of the numbers are likely to get lost, which spoils much of the usefulness of our plan. Every paper is to be as carefully preserved as we would preserve money, if we are to profit by it. And allow me to say that these bee papers have been more profitable to me than money, for the knowledge gained by and through them has enabled me to accumulate the *money* from the bees by successfully manipulating them, which thing I could not have done save for the bee papers."

"None of your moralizing. I understand about preserving the bee papers. But as you have touched on the matter of binding the year's numbers of GLEANINGS, suppose you tell me how to do that, or, rather, how you do it."

"After paying out nearly as much money for the binding of GLEANINGS as it cost me, I concluded that I would do it myself, which I generally do by driving slim wire nails through and clinching them. This makes each volume handy when I wish to refer to it, and preserves all the market quotations for honey, as well as the advertisements, which are generally thrown out where bound at a book bindery. Advertisements of years ago, and especially the market reports, are of much interest to me by way of comparison with the present."

"Thank you for this hint. Now about how to use the book we are supposed to have fixed."

"In reading, the most important part is

to preserve the 'wheat,' as you term it, which we find in our literature, and make good use of it after we have it all preserved in good order. The most of us can not find time to read any volume a second time to get the many points in it which may be of value. If I were obliged to read all a second time to find the things I considered of value to me, I fear I should not get them at all. I carefully read *once* all there is in a paper, and then I want it so I can get at what is of use to me, in a moment, just when wanted at another time. To do this, whenever I sit down to read a fresh paper I have a pencil with me; and when I find a new idea, or an old one I wish to experiment with further, I mark it."

"Please tell me how you mark what you want to read again."

"If I wish to read any whole article I put pencil-marks over the top of it and under the bottom. If only a few sentences, then I draw a mark around the matter so as to enclose that which I consider of value. In this way I can easily find any thing I wish just as quick as I see these marks; and in future years, or at any time I wish to find that which is really valuable in my volume, all I have to do is to read these marked passages and thus get the cream of the whole year in a little time."

"Well, you don't need any book for that."

"No; so far I could get along without any book or any thing of the kind; but it often happens that some of the best ideas are suited only to certain seasons of the year, and that season more than six to nine months from the time that I read it. As my memory is not sufficient for set times and dates I must have some means to remind me of these valuable points, just when they will be of use to me; and that was what led me to get and fix a book, as we have been talking about. This book is within easy reach of the chair which I generally occupy when reading; and as soon as something valuable is marked I jot down the page and subject in the book, under the date to which it is applicable. Thus I have all the matter which I consider valuable to me, contained in the numerous papers which I read, arranged with reference to the time it is to be used, all before me at a moment's notice in this book."

"Will you please explain a little more fully? I do not know that I fully comprehend all of it."

"I think you understood how the valuable things were marked and how written down. Now as we are beginning the year I wish to know all that is valuable in my year's GLEANINGS and other bee papers for 1902, during the first half of January, or between Jan. 1 and Jan. 15, so I open the book at Jan. 1, as written on the little square, and look over all there is on this page; and if, for instance, I find "How to put foundation into sections"(that being a different way of doing this from any which I had previously used); and as this is the time I am

putting foundation in sections, preparing for another season's crop, I try the plan there jotted down by way of experiment, if I chance to find such a note regarding putting in foundation in this book. I see you still look a little puzzled. Let me explain more fully. In one of my bee papers I find something about keeping bees from swarming by using the shaking-out process, the writer claiming that this process will not only keep the bees from swarming, but will give a better yield of honey also. But the article was written so it appeared in print during November, while the time when I must use it would be the last half of June; so when first reading and marking, it was jotted down under June 15. We will suppose June 15, 1903, has now arrived, just the time when I could make use of this information to my profit, if I ever can, so I turn to June 15 (by putting my thumb on that date when opening the book), and right there under the title of "shaken swarms, a preventive of swarming, with large honey-yield, try it—*Review*, 1902, pages 337, 338, 339," I find just where to turn to find the matter I wish to know about at just this very time of the year, although it was six months from the time of the year when I wanted it. Reading it I am ready to put it in practice, just as much as I would have been had I just read it in the fresh number of the *Review* for June, 1903. By your looks I see you understand now."

"Yes, I do. I thank you, and will go, as I have already stayed too long."

it seems to me that, out of a shipment of 500 colonies to Cuba, the loss of even five bushels of bees would be insignificant. It would be almost like the proverbial drop in the bucket. Then the bees we sent had borne some of the toil of the season around Medina, and had practically served out their best days. So it was not at all surprising that, when the heavy honey-flow came on in Cuba, these bees would "peter out." A heavy honey-flow anywhere is liable to use up the old bees.

A. I. R. is very much pleased with the Cuban yard. He says it is one of the prettiest apiaries he ever saw. He has been writing *Our Homes* and other matter outdoors. When he left Medina he had a hard cold, and wore a heavy overcoat, and a fur cap drawn down over his head. He looked as if he were pinched with the shivers. While we are having zero weather and a high wind, I can just imagine the pleasure he is having sitting outdoors writing for *GLEANINGS*, and perhaps in his shirt-sleeves, enjoying a genuine winter's summer.

#### THE EDITOR'S AUTOMOBILE TRIP AMONG THE BEE-KEEPERS THIS SUMMER.

I HAVE toured among bee-keepers on the bicycle; have ground centuries day after day, with the sweat rolling down off my nose; I have traveled on horseback, and in the buggy; I have even gone so far as to attempt to ride a burro at the fast pace of a mile an hour, and got off at the end of the first half-hour quite used up. I have toured on steam-cars and electric cars; and now there seems to be only one means of locomotion that I have not yet tried; and this summer, nothing preventing, I hope to try the eccentricities of a gasoline-automobile. As soon as the roads will permit I expect to make a trip on a long-distance "auto" among the bee-keepers of New York, Pennsylvania, Indiana, and Michigan. I have just placed my order for a 1903 Friedman car with double-opposed-cylinder seven-horse-power gasoline-engine. It has all the latest improvements, and it is capable of being speeded all the way from one to 25 miles per hour. It is guaranteed to plow through sand; and I should not be surprised, judging from its substantial construction, that it might plow through mud. Mrs. E. R. R. and Leland will accompany me on some of my trips, for I will shoot out one or two hundred miles, making Medina the hub of the wheel, so to speak, and my various trips representing the spokes.

The machine is ordered, and will be delivered about the first of February. In the mean time I am studying up gasoline-engines and automobiles in general, for I presume I shall have some disagreeable stops, for all gasoline-engines have a queer way of being "balky" at times. I shall make some short trips along about the first of May, roads permitting, and will begin my long tours some time in June.

We have been testing the efficiency of the



In our last issue we made reference to the fact that Mr. Jacob Alpaugh, of Galt, Ontario, intended to accompany A. I. Root to Cuba. While at Fort Pierce, Florida, he learned that his bees and bee-fixtures that he had in Bruce Co., Ontario, burned on the 27th. The bees were in the cellar and the fixtures up stairs. Mr. Alpaugh's appliances were probably something very much above the average. He is a fine workman and an inventor, and his loss will mean more to him than to the average person. We extend to him our sincerest sympathies.

THAT CUBAN SHIPMENT; HOW A. I. R. ENJOYS HIMSELF IN CUBA.

OUR Mr. F. J. Wardell writes that, instead of there being only a bushel and a half of dead bees in the shipment that went from here to Cuba, there were *five* bushels, and that, furthermore, there was a rapid depletion after the honey-flow began. But

street-car for carrying an apiarist to and from our yards; and having had some experience in having horses nearly killed (and one killed) from stings, I am now wondering if I can not drive an automobile clear up to the bees without its kicking up a fracas and smashing things all into smithereens. I have been in two or three horse runaways, and Mrs. Root has a mortal terror every time she gets behind a spirited animal. We are now hoping for a genuine good time visiting among bee-keepers without being scared to death every time we pass a thrashing-engine or a street-car.

The machine I have purchased is a Friedman, made by the Friedman Automobile Co., 3 Van Buren St., Chicago; and if you wish to look at an up-to-date beautiful machine—a veritable “red devil” capable of standing hard knocks, and of making fast time, send for a circular to the above address. Better do it any way; then if perchance I come through your vicinity you may recognize its “satanic majesty” coming down the road at a terrific clip.

#### THE RAMBLER SICK IN CUBA.

MR. J. H. MARTIN, better known as the Rambler, has been very sick with fever; but from the last account he was on the mend. He is getting to be pretty well advanced in life, reaching 63 last December; and the last time I saw him (in California) I could see that age was beginning to tell on him. He has been working hard in Cuba securing a crop of honey, and we trust he will now save his strength sufficiently so we shall have the opportunity to enjoy again his good-natured chats.

*Later, Jan. 13.* — The sad news has just been cabled us by our Manager, Mr. de Beche, that Mr. Martin is dead. Of course, there were no particulars; but the run of fever was evidently too much for him, and the end came all too unexpectedly. That broken blackboard on page 946 by artist Murray was almost prophetic of the end. It was almost Rambler’s last note to the public, and as I look at the broken and shattered pieces I can not but think of the genial soul, the light of which for this earth has gone out forever. Particulars will be given in our next issue, together with a biographical sketch.

#### TROUBLES IN THE NATIONAL BEE-KEEPERS' ASSOCIATION.

Our readers will remember that last summer a complication arose in the selection of a General Manager. The board of Directors, having discovered that it had appointed Mr. E. T. Abbott illegally to that office, recalled its action, and requested Mr. Secor, whose resignation had not been formally accepted, to fill out the unexpired term, which he did.

A good deal of bitterness and unpleasant feeling was engendered, but it was finally left to the December election. At the last election Mr. Secor put out the following ballot:

BALLOT: to be used by members of National Bee-keepers' Association in December, 1902.

For General Manager for 1903, to succeed Eugene Secor, who wishes to retire.

(N. E. France, of Wisconsin, has been regularly and properly nominated, and is believed to be worthy of your support.)

(Write name voted for.)

For 3 Directors to succeed Thos. G. Newman, G. M. Doolittle, and W. F. Marks.

.....  
Write 3 names below.

Sign your name, and mail AT ONCE.

The name of Mr. N. E. France was the only one of the candidates in the field that was named; and immediately a good many inquired why it was that other names that had been proposed in the bee journals were not also incorporated in the ballot, and why there should be “electioneering” for the one candidate. Some complaint was made because the amendments offered by Mr. Abbott at Denver were not also offered for adoption or rejection at the hands of the membership, and no reason given for their omission. There was a call for a new election, as many of the friends of Mr. France believed that the ballot was unfair—that either no name should have been mentioned on the ballot, as has been the custom heretofore, or else that all the names should be included. In reply to these various charges Mr. Secor makes the following statement:

Mr. W. Z. Hutchinson:—I have your recent letter in which you say there is some dissatisfaction among some of the members of the Association regarding the form of ballot recently sent out, and because there were no constitutional amendments submitted. I am sure that any fair-minded member will, when he learns the facts in the case, exonerate the General Manager from blame in both cases. The reason why Mr. France's name was mentioned on the voting-blank was that he was the *only person* nominated in a proper manner. His name had been regularly presented to the Chairman of the Board, and seconded by at least half a dozen members. It therefore came to me officially, and I was obliged to call attention to it.

Perhaps it may be stated that other names had been mentioned in some of the bee-journals. Granted. I now think I remember one person who so nominated *three or four men for the same office*. But by what constitutional provision is the Board of Directors or the General Manager required to take cognizance of every suggestion made by every person who may write to periodicals published in the United States? Why were not these nominations made to the proper officials of the Association? Unless these matters are brought to me personally I can not undertake the responsibility of endorsing them.

Now as to the constitutional amendments offered at the Denver convention: How could I submit so important a matter as that to a vote without a word from the Secretary? In fact, I never saw a copy of them until the voting-blanks had been mailed, and then only a stenographer's report of them. Dr. Mason wrote me, soon before his death, that he had no copy of the proposed amendments; that they had never been turned over to him. If the Secretary of the Association could not certify what the proposed amendments were, how should it be expected that I should take the responsibility of interpreting them?

I said before, and now repeat, that I did not see even a purported copy of any proposed amendments till after the voting-blanks had been printed and sent out. If we are not to be governed by constitutional authority, why have a constitution? If we do not practice business methods, and follow parliamentary usages, our association is but a rope of sand and is not worth saving.

I hope soon to turn over to my successor the records and funds of the largest and most prosperous bee-keepers' association in the world; and if we will stop our quibbling about unimportant matters, and put our shoulders to the wheel in the spirit of fraternal helpfulness, the future of the Association will be brighter than ever; but if factionalism and love of office prevail it will be rent in twain, and die a premature death.

EUGENE SECOR, *General Manager.*

This seems like a reasonable and fair statement save in one point: I don't see that an explanation has been offered why the name of Mr. France (and I voted for him and will vote for him again if given a chance) should be favorably recommended on the blank ballot that is supposed to favor no one. I presume Mr. Secor did not intend to have the statement construed as electioneering matter, for he is a man who means to be fair.

I am free to acknowledge that I was one of the parties who was in favor of a new election, and am yet if it can be held without bringing greater complications. I took the ground that, while I believed Mr. Secor may have proceeded in a perfectly legal manner, the ballot has the *appearance* of unfairness. I had come in possession of information to the effect that many who expected to vote for Mr. France voted for Mr. Abbott, to rebuke what they thought was an unfair ballot.

The Directors are talking these matters over informally among themselves. Just what action they will take can not now be stated. It may be the constitution will not permit of a new election. I do not see it that way. It is possible that a new vote may introduce more complications more serious than those now before us. Many honest men in whom I have confidence think so. They take the ground that, while the ballot may have been a little unfair, there was nothing illegal about it; that a new election would be illegal, as the constitution provides that the election shall be held in December.

Mr. Secor might have said that the amendments as published in the *Modern Farmer* were not the same as those that were offered at the Denver convention. In the first place, the wording was changed in minor points; and in the second place, important limiting clauses, suggested by members of the convention, and which Mr. Abbott there accepted, are conspicuous by their absence. Amendments to be voted on should be the same as those offered at the former meeting.

If there was ever a time when wise counsels and cool heads should prevail, it is now. It is no time for indulging in fault-finding until we know just what action the Directors will or will not take.

I am willing to make the best of it in either case, election or no election; and if we can all do that we shall soon have harmony in the splendid organization that we

have been laboring for years to develop. I have no sympathy with the idea that the association had better be smashed if we can't have things according to our notions of right and wrong. There is a large chance for honest difference of opinion.

I suggest that the membership agree to abide by the decision of the Directors; and that the Board take time enough to go all over the case carefully, and then decide what is best to do.

#### THAT PURE-FOOD BILL NOW BEFORE THE SENATE; DO IT NOW.

It will be remembered that I referred, in our last issue, to the fact that the pure-food bill had passed the lower house of Congress, and was then before the Senate; and I asked our readers to write their Senators, urging their support of the measure. The following letter from Prof. H. W. Wiley, Chief Chemist of the Department of Agriculture, Washington, will explain itself:

*Dear Mr. Root:*—I am gratified in reading your article on the pure-food bill, on page 11 of GLEANINGS for January. This is a righteous measure, and the good word you say in regard to it is the most helpful at this time. I wish that you could approach the Senators from Ohio in some way so as to induce them to work for this bill and secure favorable action before the end of the session. Every influence which is now brought to bear on the Senators in favor of the bill will do much good.

Thanking you for your interest in the matter, and for the good work which you are doing all along the line of bee culture, I am,

H. W. WILEY,  
*Chief of Bureau of Chemistry.*

Washington, D. C., Jan. 8.

Prof. Wiley is in position to know whether this measure is a good one or not, and when he endorses it that should be enough. I do not see how any Senator who has any regard for the stomachs of his constituents can refuse to support it. I wrote to our own Senators, and received from each a statement, signed by his secretary, that my letter would receive "careful consideration," and that is all I know. I urge the bee-keepers of Ohio, every one of them, to write one letter to Senator J. B. Foraker, and another to Senator M. A. Hanna, of the United States Senate, Washington, D. C., urging them to do all they can to bring this "righteous measure" to a vote before the session ends; and it is incumbent on every bee-keeper in every other State to do likewise by his own Senators.

I do not believe our subscribers fully realize how important this is. Nothing that has come up in years will do more to suppress adulteration than this. If I could have my way, every one would send in a letter, if he has not already done so, before he ate or slept. *Do it now* is a very good rule, especially in a case like this.

We are inclosing an index for 1902 in this issue. We received so many requests from our subscribers for an index that we concluded we had better send one to every subscriber. We have been greatly delayed in our printing department, or otherwise this index would have been out sooner. The present index is the most voluminous, by all odds, we have ever sent out.



## PREVENTION OF SWARMING; COMB-HONEY PRODUCTION.

The Veteran of the Brushed-Swarm Method Tells How his Method Differs from those Recently Spoken of in the Bee Journals; the Caged-Queen Plan of Preventing Swarming.

BY L. STACHELHAUSEN.

In the last few months I have found in GLEANINGS nearly 30 articles about brushed swarms. Nearly all of the writers criticise or recommend brushed, shook, or forced swarms for increase in place of natural swarms. Only three of the writers seem to pay any attention to my method, described in GLEANINGS for Nov. 1, 1900, which designs to prevent all swarming and all increase. We see that both manipulations are just opposite; they are similar only in this respect, that in both cases the bees are shaken or brushed from the combs. This shaking of bees from the combs is one of the most common and regular operations in the apiary—nearly as much so as smoking the bees. If we need a single brood comb for any purpose we shake the bees from it. If we sell bees by the pound we shake and brush them through a funnel from the combs into a box. In artificial swarming we shake. Before the invention of the bee-escape we had to shake and brush the bees from the honey-combs for extracting; and for a few years we have jounced the whole super, *a la Martin*, and that is a wholesale shaking.

That artificial swarms can be made by shaking and brushing the bees from the brood-combs, I have known at least since 1878. In 1883 I worked an out-apiary for comb honey, and controlled swarming to my full satisfaction by shaking the bees on starters; that is, by artificial swarming, and had a good honey crop too. It is only about 4 years that I have experimented to prevent swarming entirely by this manipulation of shaking and brushing. I caught the idea by scientific speculation, and the whole thing was new to the bee-keepers when I published my article in Nov., 1900, and it is still not understood as yet, as so many prominent bee-keepers do not see the difference between my method and the forced swarm for increase. That these forced swarms, known more than twenty years, have gained more attention, I was glad to observe; but it seems to me this is a very slow progress, as, for instance, Doolittle recommended the plan repeatedly in GLEANINGS.

My method of preventing swarms is some-

thing quite different. In the spring, and before the honey-flow, we can generally prevent swarming by the use of very large hives, and our colonies develop in them to an admirable strength. When the honey-flow commences, I remove *all* the brood, because the young bees, which would hatch every day in large numbers, would not find enough young larvæ to be nourished, and this causes an extension of the blood, and, in consequence, the swarming fever. A surplus of young bees compared with the number of young larvæ in the hive, will soon cause swarming under favorable conditions. This is not merely theory, but it can be proven by experiment.

This brood taken away *must* be given back to the colony as soon as it is changed to bees of such an age that they will not cause swarming any more, and will be able to help in gathering honey.

This giving back *all* the bees when they are ready for doing field work is the main point in my management. It can be done in different ways—either by shaking the bees from the brood-combs twice in front of the main colony, or by moving the hive with the brood-combs, and so, *a la Heddon*, drawing the bees from it to the main colony, at last by shaking all the bees 21 days afterward from the now empty combs in front of the main colony. Of course, this shaking can be done only once, and earlier—for instance, on the tenth day, and the capped brood-combs used elsewhere. This is something between the two manipulations.

When all the brood is removed, the brood-chamber is contracted, and starters are given. This forces the bees up into the sections and causes them to work there at once. I think this is the best possible condition of a colony for storing honey in the sections.

The difference between a forced swarm and my method is that, by forming a swarm, we divide the colony *permanently*, giving to one part nearly all the bees and the queen; to the other part, only a few bees and all the brood.

By my method for producing comb honey, and at the same time preventing swarming and increase, I remove the brood and a few bees *temporarily* only. The idea is to remove the young bees and give them employment in a separate hive till they are old enough to do field work in the main colony. We see that, by this method, the field force of a colony is not diminished at all.

The only objection worth mentioning is that the colony has to build a set of new combs, and this will take some work and some honey. I am of the opinion that a colony during a good honey-flow produces wax arbitrarily, especially if little or no brood is present—that is, if the colony is in the condition of a swarm. The production of wax will consume some honey; but this is more than balanced by the multiplied vigor of the swarm. This is of so much value that sometimes during a short honey-flow we may get a considerable amount of surplus honey from strong swarms, while oth-

er colonies not divided would give no surplus at all, but would raise a number of useless consumers. That a swarm hived on starters will give more surplus honey in sections than a swarm hived on empty combs is proven by experiments conducted by Hutchinson about 20 years ago. Under some circumstances foundation may be preferable; but to give empty combs to a forced or natural swarm is a mistake at all times, if comb honey in sections is desired.

Another method of preventing swarms is to remove or cage the queen and to cut out the queen-cells at the right time once or twice, and at last introduce or liberate another or the same queen. Compared with my plan I see some objections, and the plan has not found many followers, so far as I know. As soon as the queen is removed or caged, the swarming impulse is started at once, and can be lessened afterward only by weakening the colony considerably. With my method the swarming impulse is prevented in the main colony, or checked at once, if queen-cells should have been started, when the colony is shaken from the combs.

The swarming impulse dominates in the hive with the brood-combs; but here it is no disadvantage, because this colony can't swarm before a young queen will hatch.

Again, colonies in this condition will not work with the same vigor as a swarm. In the third place, finding the queen and caging her takes more time with these strong colonies than shaking the bees and the queen from the combs, to say nothing about hunting up queen-cells and cutting them out. Fourth, as the laying of eggs is discontinued as long as the queen is removed or caged, the colony will get weak at a certain time, and this is an objection if the honey-flow is of long duration or if a second honey-flow is to be expected later, as is the case in my locality.

According to *Stray Straws*, Dec. 1, Dr. C. C. Miller seems to prefer to breed a non-swarming race of bees to prevent swarming. It seems to me this is a very difficult problem, and I am not willing to wait till it is solved if I wish to establish an out-apriary. My experience with Carniolans and North German heather bees teaches me that the most prolific races of bees are those which swarm the most. The Italian bees do not swarm as much as these two races, because they diminish breeding as soon as a honey-flow of any amount is beginning; and this qualification is not always desirable. If we would breed a non-swarming race of bees it seems to me that this race may not have the desirable prolificness, and we want prolific queens from early spring till the commencement of the honey-flow, and we should give them a chance to lay as many eggs as possible at that time. By using large hives this is accomplished in the easiest way. In most localities, and here in most years, the colonies in these large hives will not swarm before the main honey-flow, but they are not in proper con-

dition for the production of comb honey. I contract the brood-nest as described above, and bring the colony into the condition of a swarm. This forces the bees at once into the sections, and causes the comb honey to be whiter than if produced over old brood-combs.

We know that a strong swarm, just before the main flow commences, is desirable for comb-honey production. It has the only objection, that, during the first 21 days, no young bees are hatching, and that this swarm will get weaker every day by losing old field bees. I overcome this objection by giving back all the bees at the right time, so the colony will always have as many field bees as it would have if I had never manipulated it or than the colony would have had if no swarming took place; consequently I can see no reason why it should not gather as much honey as another colony not manipulated which did not swarm.

The necessary manipulations are not difficult, and do not take much time; and I think it is hardly possible to find a more simple and more profitable way to prevent swarming, with the same security, if we work our colonies for comb honey in sections.

In the above I have neglected all points of less importance which I explained in my two articles in *GLEANINGS* for Nov. 1 and Dec. 1. I have tried to explain the principles of my method as plainly as possible, without theorizing very much, and I hope that this management will be understood now by the bee-keepers.

Converse, Tex.

[Your plan, as I understand it, does not differ greatly from the brushed-swarm plan lately advocated, where the colony is given back its brood in the form of bees at a second drive. It has seemed to me that this second brushing or drive was a very important feature of the plan. Without it one will lose a large part of the benefit. The Stachelhausen scheme of brushing or shaking has come to stay, I think, even if we were slow to take hold of it at first. We owe friend S. a vote of thanks.—ED.]

#### CANADA'S FOUL-BROOD INSPECTOR'S REPORT.

The Work of a Successful Inspector in Ontario.

BY WM. M'EVoy.

When on my rounds through the province, inspecting apiaries, I always picked out the best man in every locality that I went into to go the rounds with me, and taught him how to tell foul brood in every form and stage, and also how to cure the diseased apiaries in the shortest possible time with the least loss of time and materials, and finish by having these same apiaries built up into good paying ones. By this system of having a good man in nearly every locality I was able to manage the business for the whole province, and did get hundreds

of apiaries cured of foul brood, and very many of these are among the best-paying ones now in Ontario. In all cases of disputes between neighbors (and I had many of these to deal with) I went back very soon after, and in almost every case I succeeded in getting peace of the most lasting kind made. I often had all I could do to keep some men from rushing into the courts with cases against parties from whom they bought diseased colonies. In some cases notes for over \$200 had been given, and in others the cash had been paid. I often begged of these sorely troubled men not to go to law, but to leave all to me to get justice done, and this they did do in every case, and I got justice done, and kept every case out of court.

Where many colonies were sound, and only a few diseased, and a note given, I arranged for the diseased ones not to be paid for, but every dollar to be paid up in full on all that I found sound. The one man got the diseased ones for the curing, and the other his pay for the good ones.

Some of the sales were so unjust that I pressed for the money to be given up at once, and it was. My method of treatment never fails to make a perfect cure of every diseased apiary when the owners do their work right, and nearly every bee-keeper does it; but where they don't I have to see that they do.

The bee industry is booming in Ontario now, and at our convention held lately in Barrie a "Honey Exchange" was started, and I believe it is going to prove to be the best thing that has been brought forward in many years.

During the season of 1902 I visited bee-yards in the counties of Huron, Middlesex, Perth, Brant, Wentworth, Lincoln, Wellington, Halton, York, Cardwell, Grey, and Simcoe. I inspected 91 apiaries and found foul brood in 30 of them, and dead brood of other kinds in many others which had been mistaken for foul brood. I also found several fine apiaries completely cured of foul brood that had been reported to be diseased.

The frequent showers that we had in the early and middle part of the past honey season kept the bees in their hives for hours at a time; and this taking place when the bees had a very large quantity of larvæ to feed caused a rapid using-up of the stores; and as fast as the cells were emptied the queens laid in them, and soon after that all brood-chambers became full of brood: and as they were left in that condition with the bees being driven in from time to time by the rains which were followed by sudden warm spells, it brought on the greatest rage of swarming ever known in Ontario, and created a great demand for comb foundation; and some bee-keepers, not having any on hand, and not expecting to get any very soon, used some old combs (that were saved from colonies that had died from disease), and spread the genuine article—a thing the same parties will never do again.

All old diseased combs should be melted and put through a wax-press, as that is the only kind of extractor that will take all the wax out of old combs.

It would greatly improve the apiaries in many localities if their owners would use more foundation and melt a part of their old combs each year until they were all renewed.

While on my rounds through the province I was much pleased with the very generous treatment that I received from every bee-keeper.

Woodburn, Ont.

[ It was Mr. J. B. Hall, at one of the conventions I had the pleasure of attending, who facetiously remarked that "McEvoy's Irish blarney" would carry him through everywhere; that opposition and fighting would vanish immediately, and I should judge it had. Ontario is to be congratulated on having so able and tactful a man for inspector.—ED.]

#### CATCHING BEES TO START CELLS.

**How Swarthmore Catches up Young Bees, While They are Out for Play, to Give his Cells a Good Start; Opening Hives Unnecessary; Robbing Entirely Prevented.**

BY SWARTHMORE.

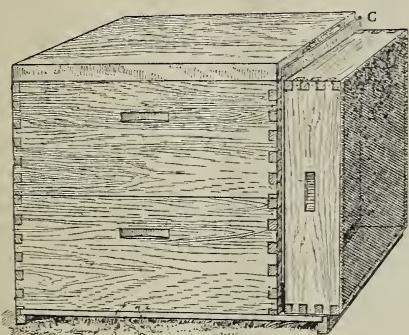
I have often noticed, in starting queen-cells, that the bees which do the feeding and the ones that are the first affected by the loss of their queen, are those just at the age of flight. The older ones, just going to field, feed larvæ if forced to it and the very young bees do some nursing, if need be; but the bulk of the feeding, under normal conditions, is done by the bees one sees on playspells at certain times of the day.

A pint of bees of the correct age will start more cells, and feed the queen larvæ more liberally, than a quarter-peck of old, young, and quite young bees mixed. It's the older bees that create disorder in their efforts to escape from the cell-starting box. They smell the new honey and pollen, and are wild to bring it to the hive. And so with the nurses. They thrash and mourn at the loss of their queen and brood; they have no desire other than for a queen; and when furnished with the larvæ their wants are entirely supplied. Then they will turn to cell-building with a will, and remain as quiet as bees can under confinement.

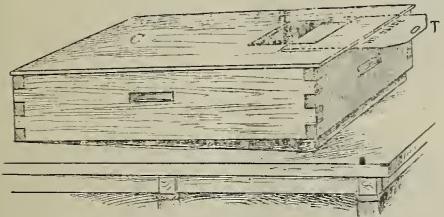
It is impossible to shake from brood-combs, in the ordinary way, only bees of the correct age for queen-cell starting. Even if done at noon, more or less field bees and plenty of quite young ones are shaken into the ventilated box. It can not be helped unless one catches up a cell-starting force while the little dears are at play.

I have used with success a trap-box made from an empty super for holding  $4\frac{1}{4}$  sections, which I place at the front of a full hive, end up, for a few minutes, as the

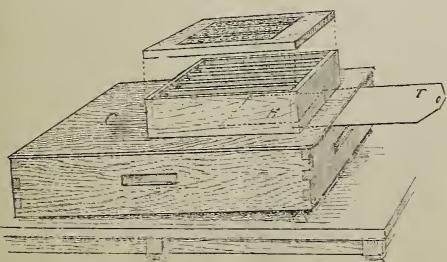
young bees are just starting out on a cleansing flight, and in this way catch up all the bees needed to start a batch of cells, with very little trouble, and practically no labor. Just stand aside and let the screen fill up. When full, tilt the super forward; and as you do so, slide the thin lid, C, down so as to cover completely the back opening of the super. The first opening is covered with wire net, as is distinctly shown.



Carry the trap to the operating-room and place it upon a bench of convenient height, wire down, and raised upon blocks to admit air, and then let it remain until the bees fairly beg for a bit of brood or a queen.



An opening is cut through the lid, C, which is covered with a tin slide, T, until the bees become fully aware of their queenlessness, then they are admitted to a set of combs, tiered above the super, by simply drawing the tin slide, T. The bees will



almost immediately troop joyously up and take possession of the combs. Give them larvæ at once.

I use a small hive-body holding 5 combs

$4\frac{1}{4} \times 8\frac{1}{2}$ . This I place directly over the opening, H. On the combs are placed the cell-bars for holding Swarthmore compressed cups; and as soon as the bees occupy the combs the larvæ are inserted through the holes in the cell-bars, each cup having been supplied with an egg deposited there by the breeding queen. Twenty-four cups are given, and all are generally accepted. The body being small, the cluster is compact, and heat is maintained, yet ventilation is good, and, as a result, we get fine cells.

#### ORGANIZATION AMONG BEE-KEEPERS IN CALIFORNIA.

California Organized; Organization Begun on a New and Substantial Basis.

BY F. E. BROWN.

Organization is the watchword on the Pacific coast among the bee-keepers, and it behooves the committee of the National organizers to do fast work or the local branches of the National Association will be far in advance of the mother order.

Last week the writer went to Los Angeles to attend the California State Bee-keepers' Association, and there was much enthusiasm along the line of national organization, and I assure you I did all I could to promote the national idea of marketing honey, and wish to report that my time was not wasted. There was a committee appointed at that convention to organize for the marketing of honey, consisting of L. E. Mercer, G. W. Broadbeck, M. H. Mendleson, J. F. McIntyre, Emerson Bro's, and F. E. Brown. This committee spent one day after the meeting adjourned, and effected one of the most substantial organizations ever known on this coast.

The name of the new organization is the California National Honey-producers' Association. It is a stock company, and the papers of incorporation are now pending; term of years fifty, with a capital stock of \$25,000, each stand of bees to represent a share, with a par value of five cents per share. This is so placed that it will not exclude any one from coming in. They are to have a board of five directors, who will elect and employ a local or general manager, whose duty will be to grade all honey, seal it with a seal bearing the name of the National Association, which will guarantee to its consumers the pure article. After the honey is graded and sealed it is never to be opened until it is opened for consumption. Any one who will buy a case of California honey whose seal has not been affixed, or if it has been broken, will in the future take the risk of getting what he orders; but on the other hand, if the package that he orders bears the seal of the California National Honey-producers' Association he can depend upon it he has the genuine ar-

ticle. This should be encouraged everywhere; and let every locality so organize; but be sure to recognize the National Honey-producers' Association by leaving a place to couple on when the latter organization has been perfected.

Grading-rules will be discussed so that they will be uniform as nearly as possible. When the official grader of the National Honey-producers' Association takes a sample out of a case of honey, this sample is then placed in a sample bottle, and the bottle is then placed in a hole that has previously been bored in the center-piece of the shipping case, so when the honey in any case needs to be sampled it will not be necessary to break the seal, but simply lift the sample bottle from the center-board and you have the correct sample before you; and that, too, in the proper form so you can see it.

I again suggest that every well-to-do bee-keeper, or any other one of good standing where there is no commercial organization, take the responsibility upon himself and effect such an organization. The plan of the Colorado Honey-producers' Ass'n is a good one. It is very much like ours, and perhaps the Colorado plan is better known than some other. Have a central place to transact the business; also a business manager to do the business, whose duty should be to grade, seal, and sell all the products of its members. Except the honey sold at retail, all honey sold at retail by any producer will be free from any charge of the Association. And any member who can turn over to the manager of the local Association an order for a car of honey will receive a specified per cent of the sale of the same, up to the amount of his own product. This the local Association can just as well do as to pay it to some broker; and in this way the producer who now has a trade, and is selling by the carload lot, will still retain his customers, and it will be made an object for him to do so; and the same way with the retail man. He will not be called upon for a commission for the honey that he sells in this way, by retail—I mean in lots less than carloads; so you will see that it encourages the selling of the honey by the members, both in small and car lots, and at the same time it is the strictest kind of co-operation, and not competition as we now have it.

When the National Honey-producers' Association is fully organized it will be a gigantic brokerage system, one that will be perfectly safe and reliable, one in which all its goods will be of its own production, and offered to the market from these local organizations; in other words, these local organizations, which are now seeking a market for their honey, will then find this National Honey-producers' Association a channel in which to market their goods, and a small commission will be paid to the N. H. P. A., which will be very small, and smaller as the volume of the business increases.

The article published in the *Bee-keepers' Review* for December, by E. B. Tyrrel, has many points that are worthy of consideration. He mentions the necessity of competent organizers to work up the local organizations. This, I think, is well, and along this line I have worked, and have reached every convention possible. Co-operation and organization of a national type has been my hobby.

But I can not see how it is going to be such a hard task as Mr. Tyrrell seems to be impressed with; for when the plan is decided upon by the committee, and accepted by the National Bee-keepers' Association, it will be a very easy matter to elect the proper officers, and then proceed to business, while the honey that is now marketed by the local association will not all be turned over to the National the first year. It will grow in favor year by year, until soon we shall be in control of the entire output. The thing now to do is to effect the local orders everywhere; and as soon as the other part of the machinery is in working order, then couple on, and we are then one great train, loaded with the purest honey that is so sealed that it can not be tampered with until it is in the home of the consumer, where we will unload and load up our cars with the gold that has heretofore gone to build up the palaces of the millionaire. Come along, brethren; don't be afraid of a good thing.

If it were possible for this committee on plans to get together, then some speedy work could be accomplished; the machinery could be set to work, and organizers could be placed in the field, armed with definite plans, and we should be prepared to handle the coming crop. While this would call for some expenditure of money, it would be a saving of far more money by controlling what will naturally be lost if we continue as we are another season.

[The California bee-keepers are proceeding along the right lines. GLEANINGS will be glad to assist them in any way in its power, and its columns are open for anything further they may desire to say.

Mr. F. E. Brown was one of the committee appointed at the last National convention at Denver to consider plans for the formation of a National Honey-producers' Exchange or Association, said organization to co-operate with the local State organizations operating on the same line. California has taken a right step forward. If it selects a good manager, as did the Colorado organization, all will go well. An exchange may be ever so well organized and equipped; but if it does not have a good man back of it, with business qualifications, it is liable to be a failure. Mr. Frank Rauchfuss, of Denver, Col., has proven to be an ideal manager. He is genial, honest, and a good business man; and, what is more, the bee-keepers of Colorado have confidence in him. He has been tried, and not found wanting.—ED.]

**THE HONEY FLORA OF SOUTHEASTERN NEBRASKA.**

The Other Plants Besides Catnip Found in the Vicinity of Dr. Gandy's Home, Humboldt, Neb.

BY E. R. ROOT.

On p. 805, Oct. 1, I stated, in referring to my visit at the home of Dr. Gandy, that it was my opinion that catnip did not cut very much of a figure in honey production, in the locality, and then added that I would, later on, give some photos of other honey-plants. The land for the most part is deep and rich, of a chestnut or black color. The natural wild flora is very abundant, but perhaps not more so than in other portions of Nebraska. Dr. Gandy kindly drove Mr. Hutchinson, Mr. Whitcomb, and myself over the country, giving us an excellent opportunity to take photos along the way, and some of those that I then took I now take pleasure in presenting to our readers. In Figure 1 is shown a thrifty-growing catnip-plant in Dr. Gandy's bee-yard just back of his house. His little daughter, and his son, Dr. Gandy, Jr., stand in the rear. His son is, I should say, about 5 feet 9 in height, and so the reader can get an idea of the size of the plant, although this is only one plant.

While on the road leading south from town Dr. Gandy told us some-

thing of the value of buckbush as a honey-plant, and then stopped before a good-sized field of it that he had sown on some waste land. The plant was out of bloom at the

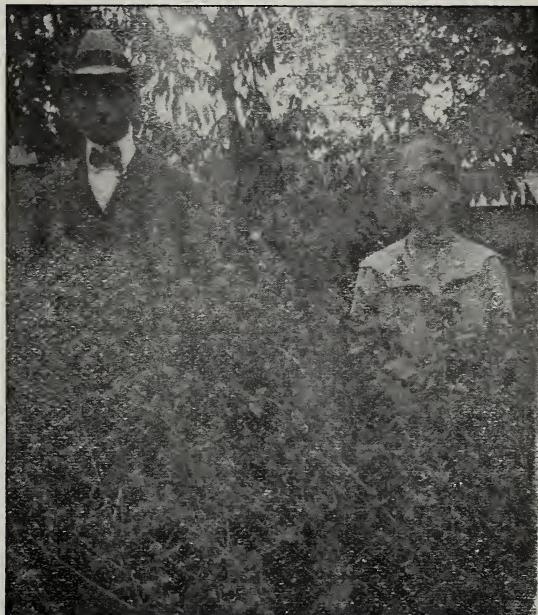


FIG. 1.—A LARGE CATNIP-PLANT AT DR. GANDY'S HOME APIARY.

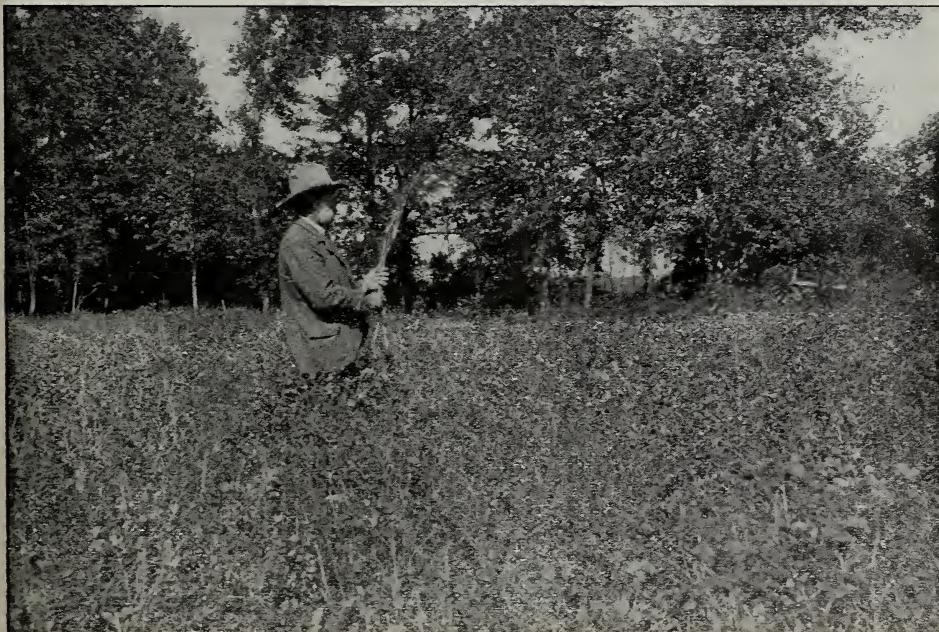


FIG. 2.—A FIELD OF BUCKBUSH SOWN ORIGINALLY BY DR. GANDY.

time of our visit, but the little white seed-balls or berries showed very distinctly.

In Fig. 2 we have a partial view of the field with Mr. E. Whitcomb standing in the middle ground. After having secured this shot I requested our jovial friend to step nearer while I took a closer view of him and the plant he had just pulled up by the roots.

In speaking of him, perhaps it is proper to remark that he is one of the leading and influential bee-keepers of Nebraska. As he lives at Friend, not far distant, he was invited by Mr. Hutchinson and myself to meet us at Dr. Gandy's. He is a Director of the N. E. K. A., and was President at the meeting held in Philadelphia. He is a genial dry joker, and I can almost see a smile on his face, notwithstanding he looks so sober. See how straight he stands, for

he is an old soldier, and has been taught to stand erect.

Dr. Gandy did not regard buckbush as important a honey-plant as catnip; it was more easily propagated; in fact, when it once struck root it was almost impossible to eradicate it. For that reason it would not be advisable to sow the seed of this plant on any thing but waste land. He did not think that either plow or cultivator could tear it up, and he intimated that there was danger that it would spread like a noxious weed.

Continuing on our drive, and following the river, we came up to several large patches of wild cucumber. The vines had covered the entire bank in luxuriant profusion for a good distance each way. The large general view I took of it was unsatisfactory and hence is not reproduced; but the next shot, of the leaves and flowers, is shown in Fig. 4. The plant trailed all over the trees, along the rail fences—in fact, it covered every thing. Dr. Gandy regarded it as a very important honey-plant, and said if there were only more of it it would yield considerable honey. The specimens shown in the plate are about a third the natural size. Little white flowers surmount the ends of the stalks; and, like many another honey-plant, their chief attraction to insects is their sweetness.

Wild cucumber is pretty well distributed, not only over all that part of Nebraska, but all over the United States. I have seen it everywhere, except, perhaps, in the far West and in the extreme South.

In Fig. 5 we have a very pretty field of heartsease. At the time of my visit, the plant was just in its prime. The bees were working busily on it, and the peculiar odor could be detected quite a distance away. Large fields of it in meadows and in cultivated ground were seen everywhere; and the beautiful combination of pink, and the deeper violet intersprinkled with pure white, made a very pretty effect. If, for example, Fig. 5 could be shown to you in the natural colors you would see something having a beautiful blend of color. While the smartweed of the East, a near relative, has dark-red bitter-smelling flowers, the heartsease has heads sometimes white, and sometimes sprinkled with white, pink, and violet, and some deep violet. I could not help noting that the heartsease in that part of the country seemed to be more vigorous in its growth than the same plant in Ohio and else-

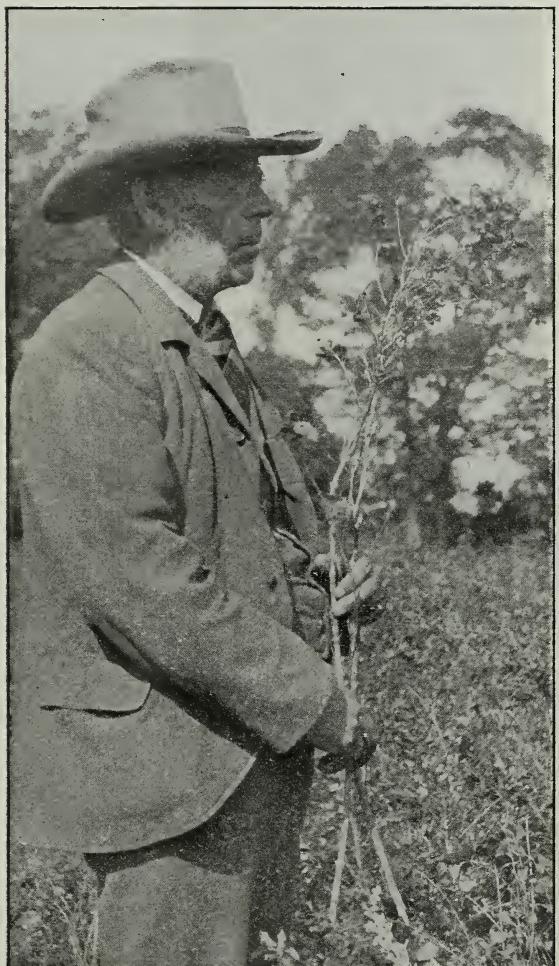


FIG. 3.—E. WHITCOMB, OF FRIEND, NEB., EXAMINING A STALK OF BUCKBUSH.

where. Indeed, it is a well-known fact that in Kansas and Nebraska it is one of the most important sources of honey. If I remember correctly, one man in Nebraska once reported a yield of 400 lbs. from two colonies, or an average yield of 200 lbs. from forty or sixty colonies. Mr. Whitcomb seemed to be decidedly of the opinion that the large amount of honey in the hives in Dr. Gandy's yard was largely from heartsease. The bees were piling into the hives, evidently loaded with nectar. He got down on his hands and knees, and placed his face near the entrance. "Yes," said he, rising, "that is heartsease, for it has the characteristic smell."

Dr. Gandy has several very fine bloodhounds. Some of the older dogs have been trained to service; and it was really interesting to see how they would take scent, track the individual, and then when they got "hot on the trail" would give that deep bay that would, I should say, make the one tracked think the very devil or a lot of them were after him.

Mr. Whitcomb took along two of the puppies, saying, with that dry smile of his, "Mrs. Whitcomb will probably raise a rumpus when she sees these pups." Later Mr. W. told me his wife had become reconciled to the pups, and that they were growing rapidly.




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OFFENSIVE ODORS FROM THE HIVES IN THE FALL.

What is the cause of an extremely offensive odor, noticeable about bee-hives at times during the fall? Would any honey that chanced to be on in the supers ever become fit to eat, or could it be made so? Will you kindly give prevention and cure?

NELLIE G. BASSETT.  
Mulberry Corners, O., Nov. 8.

[Very often in the fall of the year bees will gather honey from some fall flower which, before it is ripened, or is in the process of ripening, gives out a sort of sickening odor from the entrance of all hives in which such honey is stored. I know, for example, that unripe heartsease honey in a hive gives out a sickening smell, or at least it is sickening to me. There are others that at times give off similar odors. It is well known that the process of ripening



FIG. 4.—WILD CUCUMBER, SHOWING THE LEAVES AND BLOSSOMS (ONE-THIRD SIZE).

eliminates the bad taste of a good many different brands of honey. For example, the nectar from the flower of onions is very offensive; but after it has been thoroughly ripened by the bees the offensive odor is practically gone, and the honey is not unpleasant.—ED.]

NORTHERN ILLINOIS AS A HONEY LOCATION;  
WOULD IT PAY TO MOVE BEES THERE?

How does Northern Illinois rank as a honey-producing section? Do you think it a better place for producing honey than here in Vermont? I do not suspect it is a very good place; but would it pay to move about twenty colonies out there if I were going any way? The bees are in Simplicity hives, and in very good order. I am wintering there on their summer stands.

How early in the spring could they be moved? How should they be prepared for shipping? I suppose they would go by express. About what would be the rates from here to Chicago, and would I be allowed to go with them provided I pay my fare?

LEON E. HALL.

North Springfield, Vt., Nov. 29.

[Northern Illinois is no better for honey than your locality in Vermont, probably; but if you are going for other reasons we would advise you to sell your bees where they are, rather than pay express charges

to move them to Illinois, for the charges will probably be as much as the bees are worth. A cheaper way would be to take the express charges and buy bees and put them in new hives after you get to your new location.

You can move bees at any time in the spring; in fact, they *can* be moved in the dead of winter; but when the air is very cold, combs are liable to be brittle. If the bees are to be moved it should be done when the temperature is above freezing.—ED.]

PAINTING HIVES A WARM COLOR.

In wintering bees with telescope covers why would it not be a good plan to paint the covers *black*? They would, if black, keep the hives warmer, during the day at least.

C. G. DICKSON.

Kensington, Md., Sept. 17.

[We have made it a rule to paint our winter cases with common Venetian red. A warm color may have the advantage of drawing enough heat from the sun at times to warm up the cluster in the hive, thus causing it to turn over and move on to more honey, and thus be prepared for the long cold snap. I have observed this: that sometimes colonies outdoors have starved to death because the cluster has consumed all the honey within three or four inches of it. If

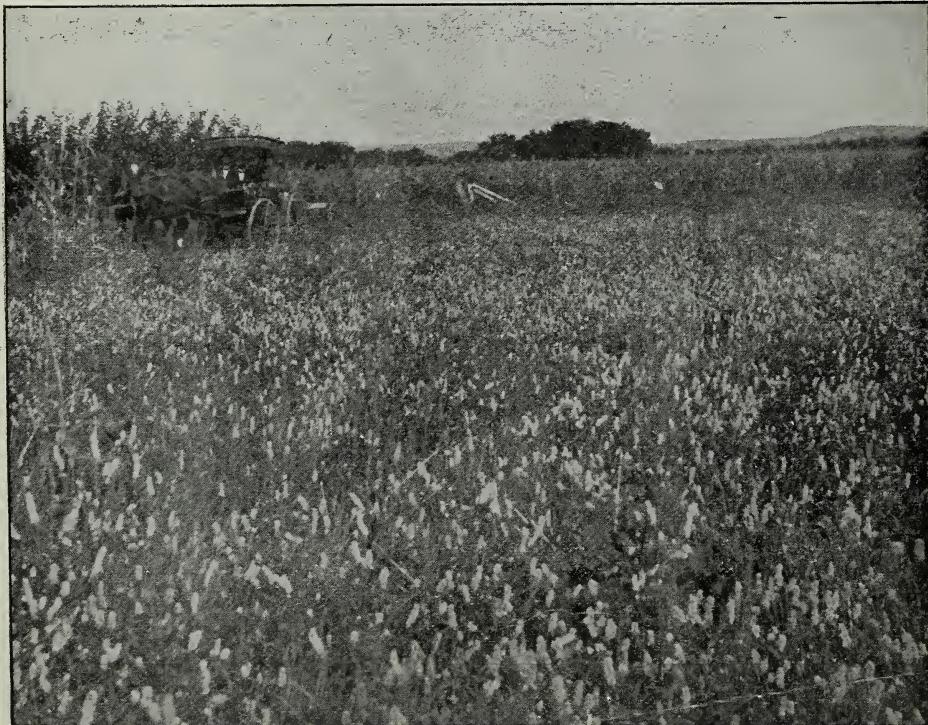


FIG. 5.—A FINE FIELD OF HEARTSEASE.

there had been a warm spell of even one day, this cluster would probably have moved over far enough to get over on to the honey, and all would have been well.—ED.]

#### WHAT IS THE USUAL DEATH-RATE OF A COLONY IN WINTER?

I have just begun bee-keeping, and I have five stands in the old ten-frame Simplicity hive. There is an oilcloth spread over the brood-frames closely, and about a month ago I made sacks of burlap to fit the hives, filled these with chaff, and pressed them down closely on the oilcloth. The opening into the hives is just the same as it was in the summer. It seems to me that these bees ought to do well, but they are dying. Every day a dozen or more dead bees are rolled out of each hive. They are not dying for want of food, for there is more than 30 lbs. of honey in each hive. Is this only an ordinary death rate? If it is not, what is probably the cause? I also want to know which is best for bees—sweet or crimson clover. Do these clovers furnish hay and fertilize land like red clover?

E. L. BLAKE.

Grand Tower, Illinois, Dec. 10, 1902.

[The trouble is, your bees have hardly sufficient protection; that is to say, a cushion on top of the frames is not enough, although it is good so far as it goes. Your better way would be to put that colony in the cellar, provided you can darken it, and the temperature can be kept somewhere about 45 Fahr.—ED.]

#### THE DANZ. HIVE USED IN MANAGING SHAKEN SWARMS.

Bees seldom make any surplus honey here in spring, but consume it all and breed in most prolific manner. I have about 50 colonies in 8 and 10 frame L. hives. I am going to get Danz. hives and set one in place of populous colony, after removing it, and then shake young bees from it and two others into the empty Danz. with young queen, and from these 3 L. hives shake out every 10 days all young bees into said Danz., use my whole 50 L. hives thus, 3 to 1, fed into the Danzies, and I believe I can make a lot of spring honey here and surprise the old bee-keepers who say it is useless to try till fall. If I fail there will be no loss, as they do nothing but breed as it is in L. hives, in the usual way of working; but I feel confident they will pile a lot of honey in sections when treated that way. That will be "shaking" in earnest, and then following it up with plenty of re-enforcements. I don't need any extracting-supers to get them above when I do that, as I found last fall by driving three box-hive colonies into one Danz. which worked finely, except that the colonies began to run down too quickly, but the young bees continually shaken from 3 L. hives into one Danz. will remedy that. In fall I want extracting supers to start them above; and then if strong colonies, and plenty of honey, no more to do.

Bees never went into winter better than ours here this time. Brood-chambers are full of finest quality of honey; very late breeding, and hives full of young bees. My bees were bringing in pollen yesterday, and I presume they are breeding some yet. In this locality I disbelieve in any kind of upper-story fixing, but back my judgment with risk of bees, and leave all mine with nothing above brood-chamber but the ventilated gable top. I have not opened one of them since Oct. 20, which gives time for them to seal up every crevice before severe weather. With plenty of honey and young bees, that is all I ask for. In shallow hives it may be different.

Paducah, Ky., Nov. 2. W. M. JANES.

#### RAPID-GROWING TREES FOR SHADE TO BEE-HIVES.

Will you kindly tell me what variety of tree to plant or set out that will give a shade to the hives in two years' time—some quick-growing kind that you are familiar with? They must grow tall enough to clear a man's head with a globe bee-veil on.

Vorden, Cal., Dec. 8. ALBERT LANE.

[The eucalyptus of your State and the cottonwood of Arizona are both very rapid-growing trees. If I remember correctly I saw some cottonwoods in California. There is a species of willow there that is also a rapid grower. Almost any nurseryman in your vicinity could give you the desired information.—ED.]

#### A REASON FOR BEES NOT CAPPING OVER HONEY AT TIMES; CLOVERS AS HONEY-PLANTS.

Please tell Dr. Miller the seasons have already changed. Last year was very dry, this season extremely wet, and this was a poor year for the bees. Some of them have the most uncapped honey in combs I ever saw in the fall. I think the cause of this was the long-continued fall flow of nectar in the different clovers, but not enough to produce wax; consequently the honey stored was left uncapped. LOUIS HOCKET.

Fairmount, Ind., Nov. 26.

#### A CARD FROM PROF. H. W. WILEY.

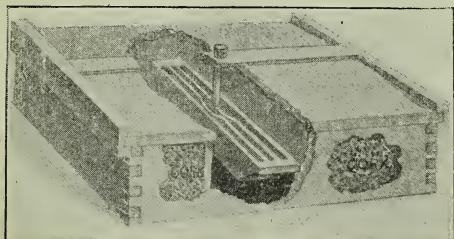
*Mr. Editor.*—I appreciate the great fight you have made for the purity of honey. I am sure that every believer in the principle of pure food feels grateful for the work which you have done in that line. While the evil of honey adulteration is not entirely eradicated, it is certainly not so rampant as it was before the fight against it was made. I shall not be willing to lay down my arms in this matter until national and State pure-food laws together completely eradicate the great evil which has so long been a menace to the prosperity of the honey industry. H. W. WILEY,

Chief of Bureau of Chemistry.  
Washington, D. C., November 24.

## THE FERRY FEEDER AND COVER COMBINED.

Bee-keepers have had in time past considerable trouble in spring feeding, also stimulating small colonies, disturbing the bees, getting them cross, as well as being badly stung, taking off covers, killing them, and getting them excited, causing them to consume more honey while adjusting the feeder. These inconveniences and trouble have caused me to invent a feeder that is a combination of a winter cover and feeder; can also be left on as a summer cover, and much better than the thin cover; as it will keep the sun from the top of the hive, it can be used as a cover at all times, and is always ready for a feeder or stimulator at any season of the year, and will not disturb the bees, and there is no danger of being stung. I will give you a description of the Ferry feeder.

Take a regular super which is 5 inches deep, and in the center put a Simplicity feeder, cutting into the sides of the super so the ends of said feeder will sit in, so the bottom of it will be about  $\frac{1}{2}$  inch from the bottom of the super. On both sides of the Simplicity feeder put a partition  $\frac{1}{2}$  inch from the feeder the width of the super, also a bottom, and fill in these partitions, both sides of the feeder, with ground cork, chaff, or leaves, also a cover over the Simplicity feeder, leaving  $1\frac{1}{2}$  inch space on top for bees to go into the feeder above this, and fill in with cork, chaff, or leaves. Through the top cover on the super have a hole having a pipe extending into the Simplicity feeder, through which the feed can be put, honey or syrup (sugar and water), and in this pipe you put a cork. Your yard being fitted up with the Ferry feeders, you require little feeding or stimulating. Take your pail of honey or syrup, a dipper holding  $\frac{1}{2}$  pint, and a funnel, and you can go over a yard of 100 colonies in a very short time. Remove the cork from the pipe, put in the funnel, put in a dipper of feed, and so on through the yard. You little know what a help this is until you try it. If the stock of honey is getting low it is important.



In the spring, even if your bees have plenty of honey, it is a stimulant, a change of food, and gives the bees new life, and they will work with more energy and vim. You may say it is a little expensive, but it is done only once, and you always have them. Your bees will make more honey the first season than the cost of this "Ferry

feeder." I will send you a drawing of the "Ferry Feeder" and cover combined.

H. S. FERRY.

Mount Vernon, N. Y., Oct. 29.

[Your idea is all right, but, as you say, it is a little expensive. From my standpoint, however, a Doolittle division-board feeder, costing less than a fourth as much as the one you describe, would secure to you all the advantages you get in the feeder illustrated. It has the feature of warmth; and being in the form of a division-board it can be inserted right down in the broodnest where there is the greatest heat; and, moreover, it will hold about three times the amount of feed of the ordinary Simplicity trough.—Ed.]

## ARE QUEENS FOUND ON THE OUTSIDE OF THE HIVE IN A CLUSTER OF BEES AFTER A SWARM HAS ISSUED?

On page 800, speaking of clipped queens, the editor says, "The queens coming out with swarms should generally be found in front of the hive with a cluster of bees." Dr. Miller's Straw, page 845, commenting says, "May be she *should*, but she isn't, at least not in this locality." The editor's footnote still insists on the correctness of his statement. My experience of nearly 40 years, in Indiana and California, agrees with Dr. Miller. Not more than one case in fifty have I ever found a cluster of bees with the queen. She either goes back into the hive, or is found crawling around by herself. The text-books say the old queen leads the swarm. In my experience the clipped queen is among the last bees to leave the hive, and sometimes does not come out at all, while virgin queens are usually among the first of the swarm. Writers generally say a queen on the combs may be found with a body-guard following her, making love to her, so to speak; and the text-books picture her thus attended by her loyal body-guard. This is not in accordance with my observation. The queen is rarely found thus, except when she is first mated, and has not yet disposed of the drone appendage, or when she is old, and her abdomen extended by disease or other cause. In these two cases the bees will frequently cluster around her, apparently trying to remove the difficulty. Is this the experience of others? If I am not mistaken the editor of GLEANINGS and many of his correspondents advocate raising queens from cells where the bees are trying to supersede their queen. I do not think as good queens can be raised from eggs laid by a sick queen as can be from a healthy and vigorous layer; and bees rarely supersede before the queen shows signs of failing, and sometimes hold to the old one until there is no brood left to raise a young one from.

Now, Mr. Editor, won't you "look a lede out" next year and see if I am not correct? Don't follow the old ideas just because such eminent men as Langstroth, Quinby, and others taught them. All honor

to these great men for the light they have given us; but they were human beings, and the human family may err, even the wisest of them.

DELOS WOOD.

Santa Barbara, Cal.

[You and Dr. Miller may be right; but certain it is that many clipped queens I have found near the entrance of the hives, from colonies that had just cast a swarm have had a cluster of bees around them. It may be that I happened on to the "exceptions that prove the rule."

You say the text-books say the old queen leaves with the swarm. The A B C has never said this. Indeed, if you will read the two first paragraphs on the subject of swarming, in either the old or new editions, you will find that it says the queen is among the last to leave the hive. I do not know of any modern text-books that have taught that the queen was the first to lead out.

Again, you say that writers generally say a queen on the combs may be found with a body-guard following her. Here again you have it a little too strong. I don't know that there is any such statement in the A B C, but it does state that the bees will very often stand about the queen. I have watched the queen by the hour, and there is apt to be a circle around her. She will push herself among the bees, and they will back out of the way; and if she stands still they will circle around her. But in opening the hive it is not my practice to look for a circle around the queen, for there will be no circles of bees just then. The queen is apt to be somewhat frightened, and the bees more or less disturbed; but if the frame be held in the hand for a few minutes she regains her self-possession, and then the bees will gradually circle around her if she stands still—at least, these are my own personal observations.

Yes, I do advocate raising queens from cells where the bees are trying to supersede their queen; but here again you have misread. The supersEDURE queens are not used for supplying the cells with eggs or larvæ. Cells grafted from a choice breeder are put into a hive where the bees are trying to supersede the queen, because those bees will accept almost any thing in the way of cells given.

I do not know of any author or writer who advocates using the eggs of a failing or supersEDURE queen for grafting his cells. Haven't you misread or hastily read some of the authors and writers?—ED.]

1. Please state the value of *Catalpa speciosa* as a honey-producer. I have set out a number of trees. I notice Frank Benton gives it in Honey-bee, pp. 67, 68, and wish to know if others have found it of value.

2. Also the Russian mulberry.

3. Would *Echium vulgare* (viper's bugloss, or blueweed) be of value as a honey-plant to naturalize in waste places? (Not-

ed in F. Benton's Honey-bee, Plate VIII., opposite page 64.)

4. Is asparagus of value as a producer of pollen or nectar? WILFRED ALLEN.

Windsor, Ct., Oct. 2.

[This was sent to Prof. Benton, Washington, D. C., who replies:]

1. All of the catalpas are visited freely by bees for honey. I am unable to say whether a preference is given to one species or the other. *Catalpa speciosa*, being the hardy catalpa, is receiving greater attention as a cultivated tree than the other catalpas, and no doubt will in the future be of some value to bee-keepers.

2. I have never seen bees visiting mulberry-trees of any kind. It is possible they might work on the ripe fruits under some conditions, although I have not observed this. Certainly the blossoms are not attractive to them.

3. The viper's bugloss, or blueweed (*Echium vulgare*), I do not consider a pest under a good system of cultivation; and as it is quite tenacious of life it can be readily naturalized by roadsides and in waste fields. It is true that it sometimes makes its way into meadows where the grass has been left to stand long; but, as indicated above, with a proper rotation of crops, since plowing wholly eradicates it, it is not to be believed that it would be a serious pest. The plant remains in blossom for some weeks, beginning in June and lasting well through July, in middle latitudes. The honey is of most excellent quality, clear and white, with good body, resembling in the main white clover honey.

4. Common garden asparagus, when permitted to blossom, is eagerly visited by the bees for its honey. I do not recollect whether pollen is collected or not. When grown in large areas it may be regarded as a plant of some importance, especially as it comes in midsummer, when there is often a dearth of other honey-producing plants.

FRANK BENTON.

Is the carpet grass a forage-plant for domestic animals, or is it obnoxious to them?

ALONZO KNIGHT.

Plain City, Utah, Nov. 4.

[I do not know, but I think carpet grass is not a forage-plant; neither is it particularly obnoxious to stock; but my belief is that they would eat almost any thing else in preference.—ED.]

Is the wax that comes with the honey digestible?

CHAS. H. ISSEL.

Glenville, O., Nov. 18.

[Probably not; but I never heard that the wax eaten from comb honey did any particular harm. It would simply pass through the alimentary canal, neither aiding nor retarding assimilation or digestion. Of course, if too much wax were eaten it might do harm.—ED.]



Neither pray I for these alone, but for them also which shall believe on me through their word, that they all may be one.— JOHN 17:20.

Now this I say, that every one of you saith, I am of Paul; and I of Apollo; and I of Cephas; and I of Christ. Is Christ divided? was Paul crucified for you?— 1. COR. 1:12, 18.

Husbands, love your wives, even as Christ loved the church, and gave himself for it; that he might present it to himself a glorious church, not having spot or wrinkle, or any such thing; but that it should be holy and without blemish.— EPH. 5:25, 27.

#### OFF TO CUBA.\*

About the holidays the boys suggested I should make a trip to Cuba; but when I expressed a fear that I might get the cholera, or get swallowed up in an earthquake, Mr. Boyden (our younger son-in-law) said they didn't have either at all; and, furthermore, they didn't have even mosquitoes. Mr. B. has made two trips to Cuba, and has been mainly instrumental in working up the large trade we have there.

I left home the day after Christmas, and have so far had some very "pleasant surprises" on the way. I want to tell you about some of them along in the line of recent conveniences for the traveler. For just \$95.55 the Louisville & Nashville Railroad agreed to take me to Cuba, bring me back when ready, and to be reasonably careful that I should not get lost or get into trouble. On account of the cold wave and snowstorm (didn't the Weather Bureau foretell it well all over the country?) our train was two hours and a half late in getting into Cincinnati; but a nice young L. & N. chap picked me out and placed me on my reserved sleeper, even though he had to sit up until after midnight to do it. At Nashville the conductor said I would have to change cars; but before the train stopped, a very good-looking fellow in uniform told me to stay right in my seat until he came after me, saying he would personally place me on the right train and in the right car.

Of course, this was all plain; but when every one had left the car, and they began hauling it (empty) to another part of the city, I began to fear this fellow who seemed to be "boss of the gang" had forgotten me in spite of his good looks; but a porter I got sight of (the porters are nice fellows too) said:

"Oh! you just wait one second more and he will be after you all right."

The "one second" proved to be about 20 minutes; but they finally pushed the car, with only myself and the porter in it, right up against the car I was to take. Just one thing more:

The railroad that runs into Cincinnati wanted a dollar for supper, so I didn't have

\* As Travels and Homes will necessarily run together more or less, I shall not, for the present, attempt to keep them separate.

any; but next day the L. & N. gave me three very nice meals in a very pretty dining-car, nicely served, for just about an even dollar. Whenever I have paid a dollar for a single meal because I could not well help it, it has usually proved to be a burden on my conscience, and on my digestive apparatus also.

Our train was due at Jacksonville early in the morning, and I had planned not to travel on Sunday; but we didn't get in till just about time for church and Sunday-school. When I let any thing hinder me from attending Sunday worship I feel as guilty (or more so) as when I pay a dollar for a single meal. I asked the trolley-car conductor if he could take me near a Congregational church; but he said he did not think there was any such. Their church burned down at the big fire. I knew this wasn't true; but I did not want to be seen hunting around just at church time for my own denomination.

Now, dear friends, I want you to listen to what happened. It has often seemed as if God so plans, in his loving care over me, to try me every little while. Was it not so in this case? I told the conductor that, as it was church time already, he might let me off as near as he could to any church.

"All right; I will take you within two blocks of a new Methodist church."

On the way I considered how gladly the Methodists have always united with us in temperance and other work, and felt quite glad to be with them. These pleasant thoughts were interrupted by finding I had blundered (as usual). A couple of boys said, "There a'n't any Methodist church about here; but right over there is a new Baptist church, and they are just commencing Sunday-school."

While I turned my steps I turned my reflections also to the fact that my father and mother were both Baptists, and very soon I was not only reconciled but happy to think of worshiping with the Baptist people. We had a very nice Sunday-school; and, by the way, could anybody tell from any Sunday-school what church it was? During the intermission a good brother informed me the boys had made a mistake, and that the beautiful new edifice we were standing in was a Presbyterian church. Then I considered that it has often been said there is very little difference between Congregationalists and Presbyterians any way, except that the former are not quite so stiff and formal, and perhaps aristocratic, as the latter. I very soon began to feel quite at home with these good people. Now, friends, this is not quite all of the test. A little later it was announced that the regular pastor was obliged to be absent, and that the Rev. Dr. Gale, a Congregational minister, would preach to us. The events of the morning, the mistakes and blunders of my own and others, had taken the measure of the attitude of my heart toward all these branches of God's worshipers. But even this was not all of the lessons I was to

learn. After the meeting the good brother I talked with said in substance:

"Mr. Root, before the fire there were two churches—a *North* and a South Presbyterian. Both were planning new buildings; in fact, a great part of the money was in the banks, and both buildings were insured. After the fire, something or somebody suggested *uniting*, and then everybody was astonished to find almost no objection *anywhere*. I told Mrs. Root I believed God called me to take this trip, or, rather, that he had something for me to do away from home, although I had no idea what it was. Is it possible he wishes me to use my influence and ability to bring about a closer unity between the churches? He *knows* how my heart is in it. The temperance work, the Endeavor work, the Y. M. C. A. work, the W. C. T. U. work, and many other things are leading that way. United, we stand; but divided, we fall."

The next day a new friend who has been reading the Home Papers, Mrs. M. Lewis, of New Smyrna, unconsciously turned light on this matter from *another* standpoint. She very kindly volunteered to go with me a short distance to point out a crooked path to another bee-keeper. On the way we passed near a colored settlement. She said something like this:

"Mr. Root, that our colored friends may not be behind the whites you will notice they have a good many churches for so small a town. They can't get along without two kinds of Methodists and two kinds of Baptists, and so they are trying to keep up *four* churches and *four* ministers out of their scanty earnings."

May God help us to do better, if it is indeed true that these poor friends are looking to us to set them a pattern!

For whom Christ died.—I. COR. 8:11.

Our steamer came in sight of Havana about daylight, January 2. She anchored right close to the wreck of the Maine. I was a stranger in a strange land; not a soul around me could understand our language. As I looked at the rusting relic of the recent awful tragedy that stirred the whole world, there was a tendency to uncharitable feelings toward the new and strange people. But about this time something suggested the words at the head of this paper, "for whom Christ died." A tug came out to take us to the dock. Our people sent a letter, asking our agent at Havana, Mr. F. H. de Beche, to meet me at the landing; but I arrived just before the letter did.

While I was on the tug a nice-looking young fellow approached, and, touching his hat, inquired in very good English if this was Mr. Root. I assented, and inquired if he was sent to look after me.

"Mr. Root, no one sent me; but I know Mr. de Beche, and something of the business he is doing with your company; and when I saw your name on your bicycle-trunk I thought perhaps I could aid you."

He assisted me in having my valise pass the custom-house examiners, went with me and hunted up Mr. de Beche, and wouldn't accept a cent as pay for his time. As Mr. de Beche was busy for a good part of the day I begged to be allowed to run over the city a good deal alone. I wanted to take my own time in studying humanity in this, to me, new world.

Havana has a population of toward a quarter of a million, and this vast multitude are, as it seemed to me, out of doors the greater part of the time the year round. The shops and stores are mostly out of doors; the porches or awnings extend out so far it makes the street exceedingly narrow. At first it seemed to me they were uncomfortably narrow; but after a little I found some advantages in the narrow streets. For instance, it makes the shops cool and shady—the more so as the buildings are all of stone, even to the roofs and ceilings. Like the coral rock in Bermuda, when first quarried it can be easily sawed into stone slabs, or, you might almost say, "boards." I found people of all nationalities side by side, on the most friendly terms—Spanish, Negro, Chinese, and a sprinkling of Americans, but no one apparently above or much above the others. They seem to prefer to be called Cubans instead of singling out the different races.

Until recently, *getting married* has been so expensive that a great many heads of families have never been married at all legally; and, although separations are rare (thank God), this easy way of starting "homes" has perhaps tended much toward amalgamation. In the city everybody is fairly well dressed, and, as a rule, the people are clean. They have a great abundance of very pure *spring* water. A part of the stores advertise that English is spoken; but out in the open street, perhaps not one in a hundred speaks anything but Spanish. As I looked them over I kept saying in my mind, "For whom Christ died;" and as a new love and compassion filled my heart I became very happy. I believe God called me to that trip up in Northern Michigan; I believe he was pleased to see me plead with them for the upbuilding of that scattered little church. I did not know why his voice in my heart seemed to call me toward Cuba; but when the beautiful thought of our text came into my mind, and began to unfold, "For whom Christ died," then I began to comprehend a little. I do not know what I am to do or how I am to labor; but I feel strangely called toward these mixed races of people. In Mr. de Beche's office there is a fine large phonograph for sale. It is kept going a good deal to show people how it can talk and sing. During the day it commenced playing "Dixie's Land." A spindly colored juvenile listened awhile. The melody touched a responsive chord; his arms and legs began to keep time to the music, and then he danced as only children of his race *can* dance. It was an innocent, childlike dance, and I

thought of what lay before him in the life God has given him to live for good or evil. Then came the thought, "For whom Christ died."

I took a ride on the electric cars, two or three miles out into the suburbs. I wandered around among the fine residences with their beautiful tropical gardens adjoining. Here we find all the rare and costly greenhouse plants of the North in their wild and untrameled beauty. Crotons grew like trees, with a variety and brilliancy of color far ahead of any thing produced in the greenhouse. Hibiscus and camelias, with blossoms larger and of greater variety, almost startled one as he suddenly comes upon them. To crown all, I came across a Bougainvillea that covered a summer-house with such a mass of bewitching and bewildering color I burst out with an exclamation of delight.

Bright colors seem to belong to Cuba. The stone dwellings are painted or whitewashed with various bright tints. You look through the green foliage, and see what appears to be a patch of blue sky; but find out it is the wall of a house so near the color of the sky you can't tell the difference. The colored girls and women delight in colors; and when they "slick up" in the afternoon, and come out on the street in their soft "summer drapery," rivaling in color the bright tropical flowers, one may smile at their efforts to follow their whiter sisters and look attractive; but when he reflects that it is such as they "for whom Christ died" I hope he breathes a prayer that they too may be led in wisdom's ways.

When I started on my trip Mr. Boyden gave me a card telling me where to go in Havana to find Mr. de Beche. He had it "Obispo St. No. 15." When I started to go over the city Mr. de Beche also gave me a card. I stuck both in my pocket, thinking they were, of course, the same. When I got lost (as I felt sure I would) I showed my card and was told where to go, and found my place very quickly.

In the afternoon I had an appointment to meet Mr. Fred Craycraft at 5 o'clock, at the same place. About half-past four I went to the place, "Obispo 15," but the street was changed—nothing familiar. It made me think of a bee when somebody has carried his hive away. There I was, a stranger in a strange city, with the only human being I knew "spirited away," and, worst of all, he had taken his business house and the whole street. I thought of the Arabian Nights. I applied to a policeman. He very kindly found somebody who could talk English. I showed my card, and they said my card was not right; but when I told them I was there since noon at "Obispo 15," and my friend and his store were there, they were greatly puzzled. Those who knew the city were called in. They looked at me to see if I was sane, and looked at my card. While I was considerably worried, it made my heart glad to see half a dozen men stop their own business to bother with a stran-

ger. Not one turned away until they got me out of trouble. Finally one of them said:

"Why, that place is O'Reilly St., not Obispo."

Then I found Mr. Boyden had made a mistake in the street.

On my former trips I had referred to the printed card without noticing my written address was not the same; but the accident gave me an insight into and an acquaintance with these people I should not have gotten otherwise. They seemed worried and troubled because they could not help me out of my dilemma.

While on the cars coming out to our apary a very pretty young girl got on the train and sat in front of me. Over her jet-black hair was a head dress of some kind of lace. Her soft dreamy eyes had an innocent, pure, childlike look that made one turn to her again and again. She made me think of the tropical flowers I have been trying to describe. "Surely," said I to myself, "this rare picture of feminine loveliness must be as pure and good as she seems." A little later the fumes of a cigarette came across my face. A hand as beautiful as the face of the owner lay on the sill of the open window, and, as sure as you live, the cigarette that annoyed me rested carelessly between those dainty fingers. Again my little text rang out sharp and clear, "For whom Christ died."

I am writing on a little stand out in the open air this 7th day of January. Our Cuban neighbors are curious about our little city of white bee-hives. A little girl of eight has just been here. She and I are friends already. She can read and write Spanish, but not English. We are teaching each other. A bright young man comes to see us nearly every day. He knows but two words of English, "good by." We all have a big time laughing when he comes, shakes hands all around, and says, clear and plain, "good by," when he means "good morning," or "how do you do?" I am sure I think I can not be mistaken in feeling that these people, these "for whom Christ died," are ready, and would gladly listen to the message the dear Savior bade us carry to them. "Go ye into all the world, and preach the gospel to every creature." You know, friends, something about how Bro. Reed and I labored last summer in trying to build up that broken-down church. I am not done with it yet, but God seems to have called me to a new field; and as I look it over, the word of the Savior comes into my mind.

"Woe unto thee, Chorazin! woe unto thee, Bethsaida! for if the mighty works, which were done in you, had been done in Tyre and Sidon, they would have repented long ago in sackcloth and ashes.—*MATT. 11:21*

I do not know how much missionary work has been done in Cuba; but I am impressed that these people are ripe for a great harvest. I am told that there is a Baptist church started at Pinar del Rio, 20 miles west of here. The missionary will, of course, have to learn Spanish. Almost

none of these people speak English. Schools are started but as yet they teach only Spanish.

As I look over this land of perpetual summer, and get acquainted with these mixed races, "for whom Christ died," my heart fairly bounds at the thought of teaching these people, young and old, of that dear Savior and his wondrous love for us all, without any distinction of race, station, or color.



#### WINTER RHUBARB — GROWING IT IN THE DARK.

This is a new line of high-pressure gardening that does not seem to be very much understood. One of the clearest and best articles in regard to the whole matter, I find in the *Michigan Farmer* for Nov. 29. It accords with my own experience so exactly I thought fit to give it, slightly abbreviated, a place here.

Within the past few years the dark forcing process has assumed such proportions, and by methods so easily understood, and so inexpensive as to application, that there is no longer any necessity for the expensive systems formerly in use. Then, too, the quality of rhubarb grown in the dark is so far superior to that grown under glass, and the yield is so much larger, that the advantages of the new over the older practices are placed clear beyond the region of debate. From the financial view-point, it offers the very best of inducements, as the crop is grown and placed upon the market in midwinter when no other garden crop can be grown except by the expensive methods of the greenhouse. So, to the gardeners located within reach of markets, a winter enterprise is opened up which offers very remunerative returns.

Of this phase I shall not speak further except to call attention to a commercial cellar in actual operation. When the roots first put in were exhausted, the cellar was again filled and two full crops were grown during the winter, which brought in the market upward of \$100 from a space 12x60 feet in size.

#### A WINTER LUXURY.

The particular features which I wish to emphasize are the ease with which every family may grow a genuine winter luxury, and from December until April may have a daily supply, and almost for the asking.

#### HOW TO GROW IT.

The only conditions for entire success are strong vigorous roots two years old and upward, and a warm corner in the cellar where the light can be entirely shut out. This last condition must be followed to the letter, as it must have entire darkness, in so far as daylight is concerned, to reach perfection. As to preparing the roots, dig them out any time before the ground freezes too solidly to prevent digging. Leave as much soil adhering as possible, and allow them to freeze thoroughly, the harder the better. Do not neglect the freezing through and through, else you will meet with disappointment. After the clumps are frozen, trim them up evenly, removing all the protruding prongs so that they may be set closely together. They are now ready for forcing. Set them snugly together on the cellar bottom (either cement or earth floor), and fill up the spaces with loose soil. If the crowns are covered 5 or 6 inches deep it will do no harm, and is just as good; but they should be filled up level at least. Now tack an old carpet or heavy blanket to the

ceiling above, allowing it to fall clear to the cellar bottom and entirely surround the bed. The cellar wall will form one side of the enclosure, or two sides, provided the bed is in the corner. The enclosing with the carpet is simply to shut out the light and retain the heat, which may be supplied with a lamp or lantern. There must of course, be some artificial heat to induce growth and this is secured by setting the lamp or lantern right down among the clumps. As stated above, the daylight must be rigidly shut out; but the lamp light will do no harm, only the chimney or lantern globe should be smoked so that even that light will be subdued. The rhubarb is very accommodating as to temperature; and if the lights go out and the heat goes down it will do no harm. The temperature may vary from 50 to 85 or 90 degrees, and changes will do the stalks no harm. The higher temperatures induce quicker growth and higher-colored stalks, while a lower degree will give a heavier yield with less brilliant color. If the work is well done, the stalks will be so crisp and brittle that they will almost break of their own weight, and will be of the most beautiful color imaginable. There will be very little leaf-growth, and that of the brightest lemon color, and the stalks as a whole will be the most beautiful vegetable product that grows out of the ground.

#### AN EASIER WAY.

Now to make the work still more easy and general of application, any corner where frost and light can be successfully barred out will answer every purpose. Use a corner of a shed, a store room in the house, and even a barrel or large box in the kitchen by the range or cook stove will make a nice place. It may be grown anywhere, as there is no objectionable odor; and if grown in the kitchen it saves going down cellar to pick it. The facts are, it is one of the most dainty and wholesome winter vegetables grown, and the work is so easy and simple that every family may and ought to grow at least a generous table supply. Any variety will answer; and after the roots are once put in, they require no attention whatever except to keep the heat going, a part of the time at least. An occasional wat-ring is beneficial; but if the roots were well supplied with frozen soil when put in, the moisture from the thawing will nearly or quite carry them through. Better results will, of course, be obtained by keeping them fairly well moist. J. E. MORSE.

Wayne Co., Mich.

#### THE RESULT OF THE LAST ELECTION.

THE following is the result of the last election, held in December, for the election of officers for the National Bee-keepers' Association, and about which so much trouble has been raised:

Having received from Eliz. E. Mason, Secretary of the National Bee-keepers' Association, the results of the December election for General Manager and three Directors, I make the following announcements:

Whole number of votes cast for General Manager, 610 of which N. E. France received 489; E. T. Abbott 117; scattering, 4. Mr. N. E. France is hereby declared elected General Manager.

Whole number of votes cast for Directors, 507. Mr. G. M. Doolittle receiving 304; W. F. Marks 262; T. G. Newman 249; Udo Toepperlein 149; Wm. A. Seiser 105; Wm. McEvoy 86; G. W. VanGundy 74. The rest of the votes are scattered among 120 members, no one of them receiving more than 32 votes. Mr. G. M. Doolittle, having received a majority vote, is hereby declared elected Director. No other candidate for Director having received a majority vote, as is required by the constitution, no other is elected. The constitution says that the Directors' term of office "shall be four years, or until their successors shall be elected and qualified;" thus Mr. W. F. Marks and Mr. Thos. G. Newman retain their offices, at least for the present.

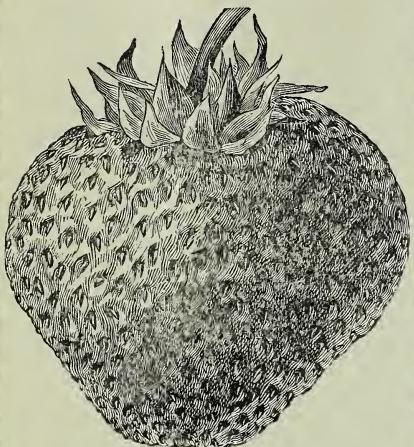
W. Z. HUTCHINSON,  
President National Bee-keepers' Association.

I do not understand that this announcement prevents the calling of a new election if the Board should so order after it has had time to go over the situation.

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The best book on strawberry-growing ever written. It tells how to grow the biggest crops of big berries ever produced. The book is a treatise on **Plant Physiology** and explains how to make plants bear **big berries and lots of them**. The only thoroughbred scientifically grown **strawberry plants** to be had for spring planting. One of them is worth a dozen common scrub plants. They grow **big red berries**. There is **GOLD** in strawberries and bees if you go at it right. The book tells how to dig it out. The book is sent free to all readers of GLEANINGS IN BEE CULTURE. Send your address to me.

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**R. M. KELLOGG,**  
**Three Rivers, Mich.**

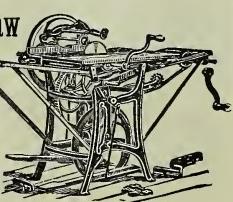
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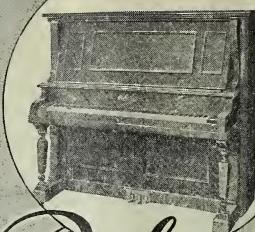
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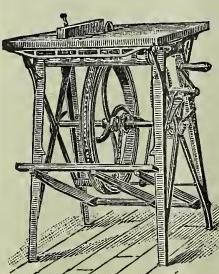
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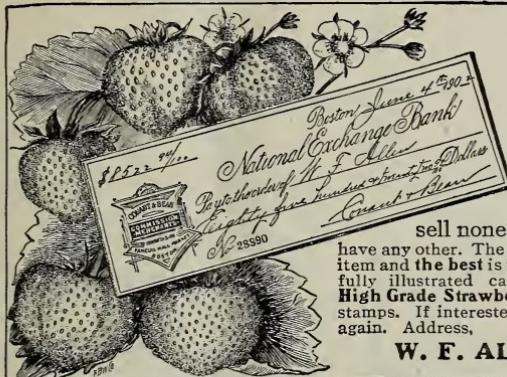
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I received the past season  
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plants). That was because  
I have only the **best**. It  
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induce you to try them we make  
the following unprecedented offer:

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25 sorts wonderful onions,  
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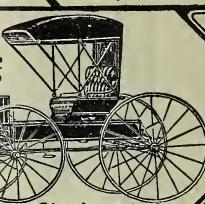
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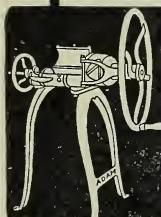


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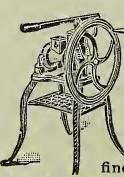
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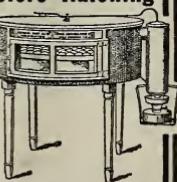
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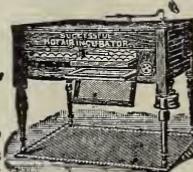
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# Gleanings in Bee Culture

[Established in 1873.]

## Devoted to Bees, Honey, and Home Interests.

Published Semi-monthly by

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### Special Notices by A. I. Root.

#### THE HOME VINEYARD.

The above is the title of Farmers' Bulletin No. 156, and it is one of the best of the Farmers' Bulletins. It contains 23 pages, full of illustrations. It gives the plan of propagating the grape that I gave for several years in the A B C book, and also gives the Fuller system, or something very much like it, in detail. If you are going to plant one or more grapevines send to the Hon. James Wilson, Secretary of Agriculture, Washington, D. C., and tell him you want Farmers' Bulletin No. 156.

#### DISSATISFACTION IN BUSINESS DEALS.

On my return home, after I had attended to my correspondence, etc., I asked our people here if they had any "jangles" or disagreements they would like to have me look into. I was glad to learn there were not many; but there were some letters from some of our advertisers, especially in the Wants and Exchange department, and from those who had received goods from said advertisers. Of course, in such cases we try to act as peacemakers; and just now I want to mention one of the troubles. A queen-breeder received an order and sent queens without the money; but, not hearing from the man in due time, he asked for his pay. But this man excused himself from paying by saying the queens were "not good." This thing has come up several times in years past; and I believe I once decided that the man who received queens, or, for that matter, any thing else, and neglected to acknowledge the receipt of the goods, and did not write any thing at all until he was *asked for the pay*, he was not entitled to a rebate. Of course, circumstances may sometimes alter cases; but as a general rule I would say that whoever receives goods of any sort for which he has not paid, and neglects to say any thing or do any thing until he is dunred for his money, forfeits his claim to a rebate. Many business firms, you are well aware, say on their stationery, "All complaints must be made inside of ten days." Of course, you can not always tell whether a queen is good or bad inside of ten days; but if you do not pay inside of ten days you should certainly write something, stating whether the queens were received in good order or not. If they are dead, mail the cages right back just as you received them, with full statement. If you neglect to do this, or say nothing at all, I should say you should pay the bill in full unless the sender is willing to divide the loss. If the queen is received in apparently good order, and proves to be a drone-layer—that is, if she is warranted

to be a tested queen—almost any breeder of good reputation will make the matter satisfactory—that is, provided you have acted fairly and honorably. But do not, under any circumstances, fail to let the man who has trusted you know about it. Postal cards are cheap; and a man who will not make use of them under such circumstances ought to be the loser. The best advertisement any man can have is the reputation of being *prompt*. Answer quickly, especially the man who has entrusted you with his goods without getting the money first.

#### BEESWAX WANTED.

The market for beeswax remains steady with a moderate supply. We are shipping so much foundation to dealers on next season's trade that we are using a much larger quantity early in the season than we have in former years; consequently our surplus is exhausted, and we are using supplies as fast as they arrive. We shall be pleased to hear from those having wax for sale. We are paying at present for average wax, delivered here, 29 cents cash, \$1 in trade, and from one to two cents extra for choice quality. Send on your shipments as soon as ready; and be sure to mark them, so we may know whom they come from. Write us at the same time, and send shipping-receipt and a notice of the weight shipped.

### Convention Notices.

A series of bee-keepers' institutes will be held in this State as follows: Canandaigua, March 2, 3; Romulus, March 4; Auburn, March 5; Cortland, March 6; Fulton, March 7; Syracuse, March 9, 10; Amsterdam, March 11.

Prof. Frank Benton, of Washington, D. C., who is furnished by the U. S. Department of Agriculture at the expense of the Bureau of Institutes of the State Department of Agriculture, will address the meetings. The New York State Association of Bee-keepers' societies will hold its annual meeting at Syracuse, March 10, at 10 A. M., in the City Hall. Prof. Benton and other prominent bee-men have informed us of their intention to attend this meeting, and a profitable and interesting session is in store for those who attend. Special rates have been secured for entertainment at the Manhattan Hotel, Fayette St., at \$1 25 per day.

Romulus, N. Y.

C. B. HOWARD, Sec.

The Michigan State Bee-keepers' Association will hold its annual convention Feb. 3d and 4th, in the Council Rooms of the City Hall, at Lansing. The rooms are in the third story, back a way from the noise of the street, yet they can be reached by the elevator.

Arrangements have been made at a nice, clean hotel, the Wentworth Ht. use, only two blocks from the place of meeting, where bee-keepers will be accommodated at \$1.50 a day.

The Michigan State Dairymen will hold their convention at the Agricultural College, Lansing, on the same dates, as also will the State Veterinaries, thus enabling the members of all three societies to come at reduced rates. When buying your ticket you will pay full fare and ask for a certificate, on account of Michigan "Dairymen's Convention," as the secretary of this convention is to sign these certificates for all three conventions. This certificate will enable you to go back at one-third fare.

The first session will be on the evening of the 3d, when E. R. Root will show us "Bee-keeping from the Atlantic to the Pacific, as seen through the Camera and Stereopticon." This will consist of portraits of distinguished bee-keepers, of apiaries, hives, implements, methods, etc., all fully explained. A more enjoyable entertainment for a bee-keeper can not be imagined.

Mr. C. A. Huff, of Clayton, Michigan, who has been experimenting the past season with formalin for curing foul brood, has promised to be present. Messrs. Soper and Aspinwall, of Jackson, are not far away, and will probably be present. Mr. Aspinwall has kept about 70 colonies for the past 10 years, without losing a colony in winter. He can tell us how he has prevented this loss; also how he prevents swarming. Mr. T. F. Bingham, who has been so successful wintering bees in a cellar built like a cistern, is also expected. Messrs. A. D. D. Wood and J. H. Larrabee both live at Lansing, and will help to make the meeting a success.

This is the first time that the convention has been held in the southern part of the State in several years; let us turn out and show our appreciation of the event.

W. Z. HUTCHINSON,  
President.

# Envelopes!!

Order \$1 per 1000

Heavy, white, high-cut, size 6 $\frac{1}{4}$ . A neat little coupon on each envelope will earn you dollars. Other stationery cheap. For particulars and sample, address at once toward Co., 516 Masonic Temple, Chicago, Ills.

**1200 FERRETS.** All sizes; some trained; first-class stock. New price list free. N. A. KNAPP, Rochester, Lorain Co., Ohio.

To make cows pay, use Sharples Cream Separators. "Business Dairying" and cat. 288 free. W. Chester, Pa.

## Wants and Exchange.

Notices will be inserted under this head at 10 cts. per line. You must say you want your ad't in this department, or we will not be responsible for any error. You can have the notice as many lines as you please; but all over ten lines will cost you according to our regular rates. We can not be responsible for dissatisfaction arising from these "swaps."

**WANTED.**—To sell 10 bbls. White Bliss Triumph potatoes—a little sunburned or green, but all right for seed—not sorted, \$2.00 per barrel; will ship in the spring. J. W. BITTENBENDER, Knoxville, Iowa.

**WANTED.**—To exchange a large list of second-hand goods, as good as new, for foundation, mill, and extracted honey. Address QUIRIN THE QUEEN-BREEDER, Parkertown, Ohio.

**WANTED.**—Comb to render into wax; will pay cash. A. P. LAWRENCE, Hickory Corners, Mich.

**WANTED.**—To sell for cash, 5 gal. square tin cans, used for honey, at about half price of new cans. Also elegant exhibition 12-lb. no-drip honey-cases for plain Danz. and 4 $\frac{1}{2}$  x 4 $\frac{1}{2}$  sections; made for Pan-American. For prices, etc., address OREL L. HERSHISER, 301 Huntington Ave., Buffalo, N. Y.

**WANTED.**—To sell 600 stands of Italian bees in Simplicity hives in lots to suit buyer. Will deliver the same to any point in the West if desired. Correspondence solicited. TYLER BROS., Nicolaus, Cal.

**WANTED.**—To exchange my new price list of 2000 ferrets, now ready to ship, for your address on a postal card. N. A. KNAPP, Rochester, Ohio.

**WANTED.**—To sell a 10-h.p. horizontal engine with upright boiler, with pump, smoke-stack, and all connections, for \$125. J. W. BITTENBENDER, Knoxville, Iowa.

**WANTED.**—Two good, reliable, temperate, and experienced bee-men—men of order and neatness; one of these to thoroughly understand queen-rearing, providing the season or winter proves good. M. H. MENDLESON, Ventura, Cal.

**WANTED.**—Partner to go into bee-business who has bees and locality; I furnish all capital and experience. G. ROCKENBAUGH, Camden, N. J.

**WANTED.**—To exchange an Odell typewriter and one Clipper bicycle for a good camera or Kodak, observatory-hive, bees, or supplies. Address L. F. WEAVER, Wingate, Ind.

**WANTED.**—Those that are thinking of building to send us their names. We will do your work at reasonable prices, and guarantee satisfaction. EVERSON & EVERSON, Architects, Brilliant, Ohio.

**WANTED**—We want to hear from those having choice comb honey to sell, stating quantity, quality, size, and style of sections, and how packed. If not yet packed for shipment state how soon you can have it ready, and the price asked delivered here or free on board at your place.

THE A. I. Root Co., Medina, Ohio.

**WANTED.**—To exchange Angora goats for any thing useful. ED. W. COLE & Co., Kenton, Ohio.

**WANTED.**—To exchange step-ladders or common ladders for a tent about 20 x 40, old or new. EDWARD GIGAX, Archbold, Ohio.

**WANTED.**—All the readers of GLEANINGS to send for the 186-page illustrated book "How to Make Money with Poultry," offered on page 75, by Cyphers Incubator & Brooder Co., Buffalo, Chicago, Boston, or New York. Mention GLEANINGS IN BEE CULTURE if you want one and it will be sent free.

**WANTED.**—To exchange 6-inch foundation-mill for wax, honey, or \$5.00 cash. I. T. STRINGHAM, 105 Park Place, New York.

**WANTED.**—Typewriter, wheel hoe and drill, and beeswax. Write for list of property in exchange. F. H. MCFARLAND, Hyde Park, Vermont.

**WANTED.**—An experienced man to take charge of aparies. Addre's with references. DR GEO. D. MITCHELL & Co., Ogden, Utah.

**WANTED.**—A Union combination saw, No. 5; must be cheap and in good condition. Write, stating price, to 1447 Charles St., St. Paul, Minn.

**WANTED.**—You to read what A. I. R. says on page 36 of GLEANINGS, Vol. 31. Order this book at once, and write me for prices on ginseng seed, or other information you want.

A. P. YOUNG, Cave City, Ky.

**WANTED.**—Two hundred stands of bees in any kind of hives, Langstroth preferred: must be cheap. J. E. HAND, Wakeman, Ohio.

**WANTED.**—To sell 260-acre farm, apiary with 75 hives attached; 100 acres in cultivation; generally level and productive; new two-story house, barns, etc; ten miles to county site and station; good community. J. A. CLEMENTS, Green Bush, Walker Co., Ga.

**WANTED.**—To exchange Dadant uncapping-cans for cash, honey, or any thing I can use in the apiary. O. H. HYATT, Shenandoah, Ia.

**WANTED.**—For cash, 250 or 300 colonies of bees in ten-frame hives: extra combs also. Prefer these that have been run for extracted honey in the Southern States. State prices on cars and what you have for sale. J. D. RHOADS, Las Animas, Colo.

**WANTED.**—To sell gladioli bulbs, Groff's Hybrids—18 gold medals at Buffalo; blooming size, \$1.00 per 100 postpaid. O. COBLENTZ, New Madison, Ohio.

**WANTED.**—To sell, or exchange for brood foundation, 75 Lewis division-boards, nailed; also 700 No. 1 4 $\frac{1}{2}$  x 1 $\frac{1}{2}$  x 1 $\frac{1}{2}$  sections, open four sides, new goods. CHAS. D. HANDEL, Savannah, Ill.

**WANTED.**—An experienced man to work in comb-honey apiary. State experience and what salary wanted. CHEEK & WALLINGER, Las Animas, Col.

**WANTED.**—A young man with a knowledge of apiculture to do general work on a small farm; apiary small. State salary expected. A. RICHTER, Bushkill, Pike Co., Pa.

**WANTED.**—Owing to recent death of my husband I want to sell my bees and entire outfit, consisting of 200 colonies of bees now located in three aparies; two locations on Mangrove Island to move bees to in summer, three boats—including one gasoline launch, all necessary appliances to run for extracted honey. To those interested I will give full particulars.

MRS. ANNA M. KING, Wabasso, Florida.

**WANTED.**—To sell a distinguished half interest in newly established apiary, comprising in a'1 48 colonies of bees, 130 hives, 125 lbs. comb foundation, honey and wax extractors, wagon, and various articles necessary. Well located, and in charge of good bee-keeper who will increase and work the bees the coming season at reasonable wages already agreed upon. Will sell at less than cost that I may extend another year. Sole and indefeasible ownership conveyed by bill of sale. If not sold by first of March, will be withdrawn. A rare chance to get a start.

W. S. COOPER, 123 South St., San Antonio, Tex.

# Now & Ready!

## Sixty-four Page Catalog

of every thing bee-keepers need. Illustrated and fully described. Especially valuable to beginners for the information it contains. Send your address on a postal and get it now. Established 1884.

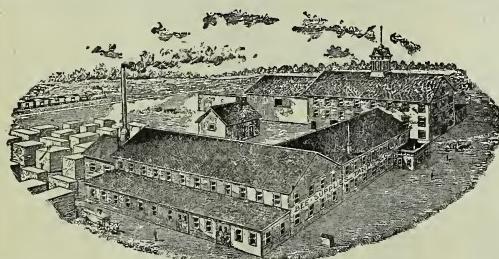
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Kretchmer Mfg. Co., Box 60, Red Oak, Ia.

## BEE-SUPPLIES.

Best-equipped factory in the West; carry a large stock and greatest variety of every thing needed in the apiary, assuring BEST goods at the LOWEST prices, and prompt shipment. We want every bee-keeper to have our FREE ILLUSTRATED CATALOG, and read description of Alternating Hives, Ferguson Suppers, etc. Write at once for a catalog.

### — AGENCIES —

Trester Supply Company, Lincoln, Neb.  
Shugart & Ouren, Council Bluffs, Ia.  
Chas. Spangler, Kentland, Ind.



BINGHAM SMOKER.

Dear Sir:—Inclosed find \$1.75. Please send one brass smoke-engine. I have one already. It is the best smoker I ever used. Truly yours,

HENRY SCHMIDT, Hutto, Tex.

### MADE TO ORDER

## Bingham Brass Smokers.

Made of sheet brass, which does not rust or burn out; should last a lifetime. You need one, but they cost 25 cts. more than tin of the same size. The little open cut shows our brass hinge put on the three larger sizes. No wonder Bingham's four-inch smoke-engine goes without puffing, and does not drop inky drops. The perforated steel fire-grate has 381 holes to air the fuel and support the fire.

Heavy tin smoke-engine, 4-inch stove, per mail, \$1.50; 3½-inch, \$1.10; 3-inch, \$1.00; 2½-inch, 90c; 2-inch, 65c. Bingham smokers are the originals, and have all the improvements, and have been the standard of excellence for 23 years. Only three larger ones brass.

**T. F. Bingham, Farwell, Michigan.**

Established 1884.



## BEE-KEEPERS' SUPPLIES!

In placing your orders for the coming season of 1903 do not forget that we always carry a stock of THE A. I. ROOT COMPANY'S goods that are needed in a well-equipped apiary. We can sell you these goods as cheap as they can be had from the factory, owing that we get carload shipments from which we can supply your wants on short notice, and at a saving of freight.

We ask a trial order to convince you that we can serve you right. Send for our 40-page catalog, free.

BEESWAX WANTED.

JNO. NEBEL & SON,  
High Hill, Missouri.

Headquarters in  
**CALIFORNIA !**

We wish to remind GLEANINGS readers that we are again ready to serve them with whatever they require in Bee-keepers' Supplies. We not only have a good assortment of our own manufacture but we can furnish a

Full Line of Root's Sundries such as Smokers, Sections, Cowan Extractors, etc. Let us have your name and address at once, and we will send you our catalog.

**Union Hive & Box Co.**  
Los Angeles, Cal.

Minnesota,  
Dakota,  
Western  
Wisconsin

## BEE-KEEPERS!

Our 33d annual catalog for 1903 (92d edition) is now ready. Send for a copy at once. We have a full line of goods in stock, and can fill your orders promptly. Save freight by ordering from the St. Paul branch. **Bees and Queens.** Orders booked now for spring delivery. **Honey and Wax.** We handle honey and wax. Write for particulars.

The A. I. ROOT COMPANY  
NORTHWESTERN BRANCH  
1026 Miss. St., St. Paul, Minn.

## Oregon Bee-keepers



For years we have supplied you with a portion of your requirements in bee-keepers' Supplies, for which we thank you. We are better prepared than ever to take good care of orders this season. We have acquired the business of Buell Lamberson's Sons, of this place, and have the agency for this State for

**The A. I. Root Co., Medina, Ohio.**

One carload is already on the way, and others will follow. If you require special goods or anything not usually kept in Western stocks, we can get it for you on our next car.

Seeds, Fertilizers, Trees, Garden Tools, Poultry and Bee Supplies.

**Portland Seed Company,**  
Portland, Oregon.

# Texas Bee-keepers.

**STOCK.**—Our warehouse is now stocked with a good assortment of Hives, Sections, Extractors, and other supplies direct from Medina.

**PROMPTNESS.**—We can therefore fill your orders promptly. Do not suffer long delay by ordering from some distant point but send orders here.

**HEADQUARTERS** for bee-keepers in San Antonio. Whenever you visit San Antonio you are invited to call at our office and make it your headquarters. See our display of supplies. Leading bee-journals on file for your perusal too.

**WANTED.**—Beeswax and Honey. Write for particulars.

**The A. I. Root Co.,**  
438 West Houston Street,  
**San Antonio, Texas.**

26th Year  
**Dadant's Foundation.**

**WHY DOES IT SELL SO WELL?**—Because it has always given better satisfaction than any other. Because in 25 YEARS there have been no complaints, but thousands of compliments.

**WE GUARANTEE SATISFACTION.**—What more can anybody do? Beauty, purity, firmness, no sagging, no loss. PATENT WEED PROCESS OF SHEETING.

**BEESWAX WANTED AT ALL TIMES.**—Send name for our catalog, samples of foundation, and veil material. We sell the best veils, either cotton or silk.

**LANGSTROTH ON THE HONEY-BEE, Revised.** The classic in bee-literature. \$1.20 by mail.

**Bee-Keepers Supplies  
of All Kinds.**

**DADANT & SON,**  
Hamilton, Ill.

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We sell the Root goods here at Root's factory prices, which means the freight is paid to Des Moines, Iowa.

Immense stock and every variety of the best up-to-date goods now on hand packed from prompt shipment.

Satisfaction is guaranteed on every order sent us. Thousands have been pleased with their goods from us. We can satisfy you.

Write for estimates, sending list of what you will need, and get our discounts for early orders. We will save you money. Send to-day for 1903 catalog.

**JOS. NYSEWANDER,**  
710-12 W. Grand Ave.  
**DES MOINES, IOWA.**

# Why Not



Place your order now? We will make you special prices for early delivery. We are headquarters in Central California for Root's Cowan Extractors, Sections, Weed Foundation, Smokers, etc., as well as a full line of local-made supplies. We can give you prompt service. We solicit your patronage.

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**Madary's Planingmill**  
Fresno, California.